**EX. B to Ades**(Alphabetically by Last Name of 9/11 Decedent)

	DECEDENT First Name	DECEDENT Middle Name	DECEDENT Last Name	Suffix Name	Economic Damage Amount	Non-Economic Damage Amount	TOTAL Damage Amount
1.	Joshua		Aron		\$5,606,165	\$2,000,000	\$7,606,165
2.	Salvatore	В.	Calabro		\$3,799,639	\$2,000,000	\$5,799,639
3.	Francis	J.	Callahan		\$1,616,396	\$2,000,000	\$3,616,396
4.	Roko		Camaj		\$932,130	\$2,000,000	\$2,932,130
5.	Paul	R.	Cascio		\$3,243,808	\$2,000,000	\$5,243,808
6.	Annette	A.	Dataram		\$1,714,081	\$2,000,000	\$3,714,081
7.	David	P.	DeRubbio		\$3,207,919	\$2,000,000	\$5,207,919
8.	Andrew		Desperito		\$3,592,905	\$2,000,000	\$5,592,905
9.	Virginia	E.	Fox			\$2,000,000	\$2,000,000
10.	Paul		Friedman		\$5,508,506	\$2,000,000	\$7,508,506
11.	Ramon		Grijalvo		\$876,631	\$2,000,000	\$2,876,631
12.	Robert		Gschaar		\$1,785,745	\$2,000,000	\$3,785,745
13.	Diane		Hale-McKinzy		\$1,695,114	\$2,000,000	\$3,695,114
14.	Thomas		Haskell			\$2,000,000	\$2,000,000
15.	(Maj.) Ronald	D.	Milam		\$4,998,233	\$2,000,000	\$6,998,233
16.	Douglas	C.	Miller		\$6,231,751	\$2,000,000	\$8,231,751
17.	John		Moran		\$7,218,555	\$2,000,000	\$9,218,555
18.	Patrick	J.	Murphy		\$4,933,016	\$2,000,000	\$6,933,016
19.	Margaret		Seeliger		\$5,381,500	\$2,000,000	\$7,381,500
20.	William		Spitz		\$2,672,504	\$2,000,000	\$4,672,504
21.	Steven		Strauss		\$2,467,348	\$2,000,000	\$4,467,348
22.	Christopher	P.	Sullivan		\$4,286,685	\$2,000,000	\$6,286,685
23.	Thomas	F.	Swift		\$5,366,125	\$2,000,000	\$7,366,125
24.	Tamara		Thurman			\$2,000,000	\$2,000,000
25.	Peter	G.	Wallace		\$1,938,476	\$2,000,000	\$3,938,476
26.	Lisa	L.	Young		\$426,815	\$2,000,000	\$2,426,815
27.	Edwin	J.	Zambrana			\$2,000,000	\$2,000,000

TOTALS \$79,500,047 \$54,000,000 **\$133,500,047** 

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mrs. Annette Andrea Dataram** 

December 26, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **October 24, 2003**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Be, uzi

VALUATION DATE	01-Jan-20
DISCOUNT RATE	4.2%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES MRS. ANNETTE ANDREA DATARAM

	PRESENT VALUE
Present Value of Lost Earnings	\$1,649,513
Present Value of Retirement Benefits	64,569
Present Value of Lost Replacement Services	0
Total	\$1,714,081

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Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
25,685	3.0%	10.460%	2,465	21.565%

## EXHIBIT 2A. PRESENT VALUE OF LOST EARNINGS MRS. ANNETTE ANDREA DATARAM SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	EARNINGS	BENEFITS	UNEMPL. ADJ.	TAXES	CONSUMPTION	NET EARNINGS	PV OF NET EARNINGS
2001	25	0.31	1.00000	\$7,876	\$756	\$0	(\$824)	(\$1,521)	\$6,287	\$6,287
2002	26	1.31	1.08227	27,798	2,668	(818)	(2,820)	(5,207)	21,621	21,621
2003	27	2.31	1.08021	30,028	2,882	(884)	(3,047)	(5,624)	23,355	23,355
2004	28	3.31	1.07816	32,375	3,108	(953)	(3,285)	(6,064)	25,180	25,180
2005	29	4.31	1.07611	34,838	3,344	(1,026)	(3,535)	(6,525)	27,097	27,097
2006	30	5.31	1.07406	37,419	3,592	(1,102)	(3,797)	(7,009)	29,103	29,103
2007	31	6.31	1.07201	40,113	3,850	(1,181)	(4,070)	(7,513)	31,199	31,199
2008	32	7.31	1.06997	42,920	4,120	(1,264)	(4,355)	(8,039)	33,382	33,382
2009	33	8.31	1.06794	45,836	4,400	(1,349)	(4,651)	(8,585)	35,650	35,650
2010	34	9.31	1.06591	48,857	4,690	(1,438)	(4,957)	(9,151)	38,000	38,000
2011	35	10.31	1.06388	51,978	4,989	(1,530)	(5,274)	(9,736)	40,427	40,427
2012	36	11.31	1.06185	55,192	5,298	(1,625)	(5,600)	(10,338)	42,928	42,928
2013	37	12.31	1.05983	58,495	5,615	(1,722)	(5,935)	(10,956)	45,496	45,496
2014	38	13.31	1.05781	61,877	5,939	(1,822)	(6,278)	(11,590)	48,126	48,126
2015	39	14.31	1.05580	65,329	6,271	(1,923)	(6,628)	(12,236)	50,812	50,812
2016	40	15.31	1.05379	68,844	6,608	(2,027)	(6,985)	(12,895)	53,545	53,545
2017	41	16.31	1.05179	72,409	6,950	(2,132)	(7,347)	(13,562)	56,318	56,318
2018	42	17.31	1.04979	76,014	7,296	(2,238)	(7,713)	(14,238)	59,122	59,122
2019	43	18.31	1.04779	79,646	7,645	(2,345)	(8,081)	(14,918)	61,947	61,947
2020	44	19.31	1.04579	83,294	7,995	(2,452)	(8,451)	(15,601)	64,784	63,361
2021	45	20.31	1.04380	86,942	8,345	(2,560)	(8,821)	(16,285)	67,622	63,471
2022	46	21.31	1.04182	90,578	8,694	(2,667)	(9,190)	(16,966)	70,450	63,460
2023	47	22.31	1.03984	94,186	9,041	(2,773)	(9,556)	(17,641)	73,256	63,328
2024	48	23.31	1.03786	97,752	9,383	(2,878)	(9,918)	(18,309)	76,029	63,076
2025	49	24.31	1.03588	101,259	9,720	(2,981)	(10,274)	(18,966)	78,758	62,705
2026	50	25.31	1.03391	104,693	10,049	(3,082)	(10,622)	(19,609)	81,428	62,219
2027	51	26.31	1.03194	108,037	10,370	(3,181)	(10,962)	(20,236)	84,029	61,618
2028	52	27.31	1.03000	111,278	10,681	(3,276)	(11,291)	(20,843)	86,550	60,909
2029	53	28.31	1.03000	114,617	11,002	(3,374)	(11,629)	(21,468)	89,147	60,207
2030	54	29.31	1.03000	118,055	11,332	(3,476)	(11,978)	(22,112)	91,821	59,514
2031	55	30.31	1.03000	121,597	11,672	(3,580)	(12,337)	(22,776)	94,576	58,828
2032	56	31.31	1.03000	125,245	12,022	(3,687)	(12,708)	(23,459)	97,413	58,151
2033	57	32.31	1.03000	129,002	12,383	(3,798)	(13,089)	(24,163)	100,335	57,481
2034	58	33.31	1.03000	132,872	12,754	(3,912)	(13,481)	(24,887)	103,345	56,819
2035	59	33.39	1.03000	11,406	1,095	(336)	(1,157)	(2,136)	8,871	4,769
Total				\$2,568,653	\$246,559	(\$75,390)	(\$260,645)	(\$481,164)	\$1,998,013	\$1,649,513

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Unempl.	Tax Rate	Pers. Cons.	Pension Contrib.	401(k) Contrib.	
	Tax Nate	reis. cons.	Rate	Rate	
3.0%	0.000%	21.565%	4.000%	0.000%	

## **EXHIBIT 3A.** PRESENT VALUE OF LOST PENSION BENEFITS MRS. ANNETTE ANDREA DATARAM SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PENSION CONTRIB.	401(K)	TAXES	CONSUMPTION	NET LOSS	PV of NET Loss
2001	25	0.31	\$315	\$0	\$0	(\$68)	\$247	\$247
2002	26	1.31	1,112	0	0	(240)	872	872
2003	27	2.31	1,165	0	0	(251)	914	914
2004	28	3.31	1,256	0	0	(271)	985	985
2005	29	4.31	1,352	0	0	(292)	1,060	1,060
2006	30	5.31	1,452	0	0	(313)	1,139	1,139
2007	31	6.31	1,556	0	0	(336)	1,221	1,221
2008	32	7.31	1,665	0	0	(359)	1,306	1,306
2009	33	8.31	1,778	0	0	(384)	1,395	1,395
2010	34	9.31	1,896	0	0	(409)	1,487	1,487
2011	35	10.31	2,017	0	0	(435)	1,582	1,582
2012	36	11.31	2,141	0	0	(462)	1,680	1,680
2013	37	12.31	2,270	0	0	(489)	1,780	1,780
2014	38	13.31	2,401	0	0	(518)	1,883	1,883
2015	39	14.31	2,535	0	0	(547)	1,988	1,988
2016	40	15.31	2,671	0	0	(576)	2,095	2,095
2017	41	16.31	2,809	0	0	(606)	2,204	2,204
2018	42	17.31	2,949	0	0	(636)	2,313	2,313
2019	43	18.31	3,090	0	0	(666)	2,424	2,424
2020	44	19.31	3,232	0	0	(697)	2,535	2,479
2021	45	20.31	3,373	0	0	(727)	2,646	2,483
2022	46	21.31	3,514	0	0	(758)	2,757	2,483
2023	47	22.31	3,654	0	0	(788)	2,866	2,478
2024	48	23.31	3,793	0	0	(818)	2,975	2,468
2025	49	24.31	3,929	0	0	(847)	3,082	2,454
2026	50	25.31	4,062	0	0	(876)	3,186	2,434
2027	51	26.31	4,192	0	0	(904)	3,288	2,411
2028	52	27.31	4,318	0	0	(931)	3,386	2,383
2029	53	28.31	4,447	0	0	(959)	3,488	2,356
2030	54	29.31	4,581	0	0	(988)	3,593	2,329
2031	55	30.31	4,718	0	0	(1,017)	3,701	2,302
2032	56	31.31	4,859	0	0	(1,048)	3,812	2,275
2033	57	32.31	5,005	0	0	(1,079)	3,926	2,249
2034	58	33.31	5,155	0	0	(1,112)	4,044	2,223
2035	59	33.39	443	0	0	(95)	347	187
Total			\$99,707	\$0	\$0	(\$21,502)	\$78,204	\$64,569

### **EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES MRS. ANNETTE ANDREA DATARAM

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	TOTAL SERVICES	PRESENT VALUE
2001	25	0.31			\$0	\$0
2002	26	1.31			0	0
2003	27	2.31			0	0
2004	28	3.31			0	0
2005	29	4.31			0	0
2006	30	5.31			0	0
2007	31	6.31			0	0
2008	32	7.31			0	0
2009	33	8.31			0	0
2010	34	9.31			0	0
2011	35	10.31			0	0
2012	36	11.31			0	0
2013	37	12.31			0	0
2014	38	13.31			0	0
2015	39	14.31			0	0
2016	40	15.31			0	0
2017	41	16.31			0	0
2018	42	17.31			0	0
Total			\$0	\$0	\$0	\$0

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Ramon Grijalvo** 

December 26, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **September 5, 2003**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

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- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

Iohn E. Be, uzil

VALUATION DATE	01-Jan-20
DISCOUNT RATE	3.4%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES MR. RAMON GRIJALVO

	PRESENT VALUE
Present Value of Lost Earnings	\$525,613
Present Value of Retirement Benefits	124,029
Present Value of Lost Replacement Services	226,989
Total	\$876,631

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Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
97.219	3.0%	20.550%	2,424	8.703%

### **EXHIBIT 2A.** PRESENT VALUE OF LOST EARNINGS MR. RAMON GRIJALVO

SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	EARNINGS	BENEFITS	UNEMPL. ADJ.	TAXES	CONSUMPTION	NET EARNINGS	PV of NET Earnings
2001	59	0.31	1.00000	\$28,746	\$717	\$0	(\$5,907)	(\$1,526)	\$22,030	\$22,030
2002	60	1.31	1.03000	100,135	2,496	(2,446)	(19,961)	(6,716)	73,509	73,509
2003	61	2.31	1.03000	103,140	2,571	(2,520)	(20,559)	(6,917)	75,714	75,714
2004	62	3.31	1.03000	106,234	2,648	(2,595)	(21,176)	(7,125)	77,986	77,986
2005	63	4.31	1.03000	109,421	2,728	(2,673)	(21,811)	(7,339)	80,325	80,325
2006	64	5.31	1.03000	112,703	2,810	(2,753)	(22,466)	(7,559)	82,735	82,735
2007	65	6.31	1.03000	116,084	2,894	(2,836)	(23,140)	(7,786)	85,217	85,217
2008	66	6.64	1.03000	39,856	994	(974)	(7,945)	(3,835)	28,096	28,096
Total				\$716,319	\$17,858	(\$16,797)	(\$142,965)	(\$48,802)	\$525,613	\$525,613

### Case 1:03-md-01570-GBD-SN Document 5563-2 Filed 01/15/20 Page 13 of 140

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	0.000%	8.703%	17.000%	2.384%

## EXHIBIT 3A. PRESENT VALUE OF LOST PENSION BENEFITS MR. RAMON GRIJALVO SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PENSION CONTRIB.	401 (K)	TAXES	CONSUMPTION	NET LOSS	PV of NET Loss
2001	59	0.31	\$4,887	\$685	\$0	(\$485)	\$5,087	\$5,087
2002	60	1.31	17,023	2,387	0	(1,689)	17,721	17,721
2003	61	2.31	17,008	2,458	0	(1,694)	17,772	17,772
2004	62	3.31	17,518	2,532	0	(1,745)	18,305	18,305
2005	63	4.31	18,043	2,608	0	(1,797)	18,854	18,854
2006	64	5.31	18,585	2,686	0	(1,851)	19,420	19,420
2007	65	6.31	19,142	2,767	0	(1,907)	20,003	20,003
2008	66	6.64	6,572	950	0	(655)	6,868	6,868
Total			\$118,778	\$17,074	\$0	(\$11,823)	\$124,029	\$124,029

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES MR. RAMON GRIJALVO

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	TOTAL SERVICES	PRESENT VALUE
2001	59	0.31	\$3,047	\$431	\$3,477	\$3,477
2002	60	1.31	9,936	1,404	11,340	11,340
2003	61	2.31	9,936	1,404	11,340	11,340
2004	62	3.31	9,936	1,404	11,340	11,340
2005	63	4.31	9,936	1,404	11,340	11,340
2006	64	5.31	9,936	1,404	11,340	11,340
2007	65	6.31	9,936	1,404	11,340	11,340
2008	66	7.31	9,936	1,404	11,340	11,340
2009	67	8.31	9,936	1,404	11,340	11,340
2010	68	9.31	9,936	1,404	11,340	11,340
2011	69	10.31	9,936	1,404	11,340	11,340
2012	70	11.31	9,936	1,404	11,340	11,340
2013	71	12.31	9,936	1,404	11,340	11,340
2014	72	13.31	9,936	1,404	11,340	11,340
2015	73	14.31	9,936	1,404	11,340	11,340
2016	74	15.31	9,936	1,404	11,340	11,340
2017	75	16.31	9,936	1,404	11,340	11,340
2018	76	17.31	9,936	1,404	11,340	11,340
2019	77	18.31	9,936	1,404	11,340	11,340
2020	78	19.31	9,936	1,404	11,340	11,137
2021	79	20.07	7,585	1,072	8,657	8,254
Total			\$199,416	\$28,178	\$227,594	\$226,989

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mrs. Lisa Young** 

January 3, 2020

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **March 8, 2003**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Bear

Valuation Date	01-Jan-20
Discount Rate	3.9%

Exhibit 1. Summary of Economic Damages
Mrs. Lisa Young

	Present Value
Present Value of Lost Earnings	\$360,783
Present Value of Retirement Benefits	66,032
Present Value of Lost Replacement Services	0
Total	\$426,815

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
29,556	3.0%	11.130%	2,446	21.57-73.55%

#### Exhibit 2a. Present Value of Lost Earnings Mrs. Lisa Young Special Master Worklife

Year	Age	Time Frame	Age-Specific Growth Factor	Earnings	Benefits	Unempl. Adj.	Taxes	Consumption	Net Earnings	PV of Net Earnings
2001	38	0.31	1.00000	\$9,063	\$736	\$0	(\$1,009)	(\$1,737)	\$7,053	\$7,053
2002	39	1.31	1.05580	31,205	2,582	(901)	(3,369)	(5,801)	23,716	23,716
2003	40	2.31	1.05379	32,884	2,721	(949)	(3,550)	(20,848)	10,257	10,257
2004	41	3.31	1.05179	34,587	2,862	(998)	(3,734)	(21,928)	10,788	10,788
2005	42	4.31	1.04979	36,309	3,004	(1,048)	(3,920)	(23,020)	11,325	11,325
2006	43	5.31	1.04779	38,044	3,148	(1,098)	(4,107)	(24,120)	11,867	11,867
2007	44	6.31	1.04579	39,786	3,292	(1,149)	(4,295)	(25,224)	12,410	12,410
2008	45	7.31	1.04380	41,529	3,436	(1,199)	(4,483)	(26,329)	12,954	12,954
2009	46	8.31	1.04182	43,265	3,580	(1,249)	(4,671)	(27,430)	13,495	13,495
2010	47	9.31	1.03984	44,989	3,723	(1,299)	(4,857)	(28,523)	14,033	14,033
2011	48	10.31	1.03786	46,692	3,864	(1,348)	(5,041)	(29,603)	14,564	14,564
2012	49	11.31	1.03588	48,367	4,002	(1,396)	(5,222)	(30,665)	15,087	15,087
2013	50	12.31	1.03391	50,007	4,138	(1,444)	(5,399)	(31,705)	15,598	15,598
2014	51	13.31	1.03194	51,605	4,270	(1,490)	(5,571)	(32,717)	16,097	16,097
2015	52	14.31	1.03000	53,153	4,398	(1,534)	(5,738)	(33,699)	16,580	16,580
2016	53	15.31	1.03000	54,748	4,530	(1,580)	(5,911)	(34,710)	17,077	17,077
2017	54	16.31	1.03000	56,390	4,666	(1,628)	(6,088)	(35,751)	17,589	17,589
2018	55	17.31	1.03000	58,082	4,806	(1,677)	(6,271)	(36,824)	18,117	18,117
2019	56	18.31	1.03000	59,824	4,950	(1,727)	(6,459)	(37,928)	18,660	18,660
2020	57	19.31	1.03000	61,619	5,099	(1,779)	(6,652)	(39,066)	19,220	18,827
2021	58	20.31	1.03000	63,467	5,252	(1,832)	(6,852)	(40,238)	19,797	18,664
2022	59	21.31	1.03000	65,371	5,409	(1,887)	(7,058)	(41,445)	20,391	18,502
2023	60	22.31	1.03000	67,333	5,572	(1,944)	(7,269)	(42,689)	21,002	18,342
2024	61	22.81	1.03000	34,678	2,869	(1,001)	(3,744)	(21,986)	10,817	9,179
Total			_	\$1,122,995	\$92,911	(\$32,156)	(\$121,270)	(\$693,985)	\$368,495	\$360,783

Unempl.	Tax Rate	Pers. Cons.	Net Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	11.130%	21.57-73.55%	0.809%	0.000%

## Exhibit 3a. Present Value of Lost Pension Benefits Mrs. Lisa Young Special Master Worklife

Year	Age	Time Frame	Net Pension Contrib.	Net Pension (Projected-Vested)	Taxes	Consumption	Net Loss	PV of Net Loss
2001	38	0.31	\$73	\$0	\$0	(\$16)	\$57	\$57
2002	39	1.31	245	0	0	(53)	192	192
2003	40	2.31	258	0	0	(190)	68	68
2004	41	3.31	271	0	0	(200)	72	72
2005	42	4.31	285	0	0	(209)	75	75
2006	43	5.31	298	0	0	(219)	79	79
2007	44	6.31	312	0	0	(230)	83	83
2008	45	7.31	326	0	0	(240)	86	86
2009	46	8.31	339	0	0	(250)	90	90
2010	47	9.31	353	0	0	(260)	93	93
2011	48	10.31	366	0	0	(269)	97	97
2012	49	11.31	379	0	0	(279)	100	100
2013	50	12.31	392	0	0	(289)	104	104
2014	51	13.31	405	0	0	(298)	107	107
2015	52	14.31	417	0	0	(307)	110	110
2016	53	15.31	429	0	0	(316)	114	114
2017	54	16.31	442	0	0	(325)	117	117
2018	55	17.31	456	0	0	(335)	121	121
2019	56	18.31	469	0	0	(345)	124	124
2020	57	19.31	483	0	0	(355)	128	125
2021	58	20.31	498	0	0	(366)	132	124
2022	59	21.31	513	0	0	(377)	136	123
2023	60	22.31	528	0	0	(388)	140	122
2024	61	23.31	272	12,135	(1,351)	(8,132)	2,925	2,458
2025	62	24.31	0	24,755	(2,755)	(16,180)	5,820	4,708
2026	63	25.31	0	21,216	(2,361)	(13,867)	4,988	3,884
2027	64	26.31	0	21,640	(2,409)	(14,144)	5,087	3,813
2028	65	27.31	0	22,073	(2,457)	(14,427)	5,189	3,743
2029	66	28.31	0	22,514	(2,506)	(14,715)	5,293	3,674
2030	67	29.31	0	22,964	(2,556)	(15,009)	5,399	3,607
2031	68	30.31	0	23,424	(2,607)	(15,310)	5,507	3,541
2032	69	31.31	0	23,893	(2,659)	(15,617)	5,617	3,477
2033	70	32.31	0	24,371	(2,712)	(15,929)	5,729	3,413
2034	71	33.31	0	24,858	(2,767)	(16,247)	5,844	3,351
2035	72	34.31	0	25,355	(2,822)	(16,572)	5,961	3,289
2036	73	35.31	0	25,863	(2,879)	(16,904)	6,080	3,229
2037	74	36.31	0	26,381	(2,936)	(17,243)	6,202	3,170
2038	75	37.31	0	26,909	(2,995)	(17,588)	6,326	3,112
2039	76	38.31	0	27,448	(3,055)	(17,940)	6,453	3,055
2040	77	39.31	0	27,997	(3,116)	(18,299)	6,582	3,000
2041	78	40.31	0	28,557	(3,178)	(18,665)	6,714	2,945
2042	79	41.06	0	21,847	(2,432)	(14,279)	5,136	2,179
Total			\$8,811	\$454,200	(\$50,552)	(\$303,183)	\$109,276	\$66,032

**Exhibit 4a.** Loss Estimated Value of Replacement Services **Mrs. Lisa Young** 

Year	Age	Time Frame	Household Services	Care Services	Total Services	Present Value
2001	38	0.31			\$0	\$0
2002	39	1.31			0	0
2003	40	2.31			0	0
2004	41	3.31			0	0
2005	42	4.31			0	0
2006	43	5.31			0	0
2007	44	6.31			0	0
2008	45	7.31			0	0
2009	46	8.31			0	0
2010	47	9.31			0	0
2011	48	10.31			0	0
2012	49	11.31			0	0
2013	50	12.31			0	0
2014	51	13.31			0	0
2015	52	14.31			0	0
2016	53	15.31			0	0
2017	54	16.31			0	0
2018	55	17.31			0	0
2019	56	18.31			0	0
2020	57	19.31			0	0
2021	58	20.31			0	0
2022	59	21.31			0	0
2023	60	22.31			0	0
2024	61	23.31			0	0
2025	62	24.31			0	0
2026	63	25.31			0	0
2027	64	26.31			0	0
2028	65	27.31			0	0
2029	66	28.31			0	0
2030	67	29.31			0	0
2031	68	30.31			0	0
2032	69	31.31			0	0
2033	70	32.31			0	0
2034	71	33.31			0	0
2035	72	34.31			0	0
2036	73	35.06			0	0
Total		_	\$0	\$0	\$0	\$0

28 Penny Lane Binghamton, NY 13905

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#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of Mrs. Diane Hale-McKinzy

December 27, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **October 3, 2003**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

ehn E. Be. uz

Valuation Date	01-Jan-20
Discount Rate	3.9%

## **Exhibit 1.** Summary of Economic Damages **Mrs. Diane Hale-McKinzy**

	Present Value
Present Value of Lost Earnings	\$1,303,378
Present Value of Retirement Benefits	391,736
Present Value of Lost Replacement Services	0
Total	\$1,695,114

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
47,274	3.0%	13.880%	5,004	13.65-20.52%

#### Exhibit 2a. Present Value of Lost Earnings Mrs. Diane Hale-McKinzy Special Master Worklife

Year	Age	Time Frame	Age-Specific Growth Factor	Earnings	Benefits	Unempl. Adj.	Taxes	Consumption	Net Earnings	PV of Net Earnings
2001	39	0.31	1.00000	\$14,496	\$1,507	\$0	(\$2,012)	(\$1,704)	\$12,287	\$12,287
2002	40	1.31	1.05379	49,817	5,273	(1,423)	(6,707)	(5,680)	41,279	41,279
2003	41	2.31	1.05179	52,397	5,546	(1,497)	(7,054)	(5,974)	43,417	43,417
2004	42	3.31	1.04979	55,005	5,822	(1,572)	(7,406)	(6,271)	45,579	45,579
2005	43	4.31	1.04779	57,634	6,100	(1,647)	(7,760)	(9,880)	44,448	44,448
2006	44	5.31	1.04579	60,273	6,380	(1,722)	(8,115)	(10,333)	46,483	46,483
2007	45	6.31	1.04380	62,913	6,659	(1,797)	(8,470)	(10,785)	48,519	48,519
2008	46	7.31	1.04182	65,544	6,938	(1,873)	(8,825)	(11,236)	50,548	50,548
2009	47	8.31	1.03984	68,155	7,214	(1,947)	(9,176)	(11,684)	52,562	52,562
2010	48	9.31	1.03786	70,735	7,487	(2,021)	(9,523)	(12,126)	54,552	54,552
2011	49	10.31	1.03588	73,273	7,756	(2,093)	(9,865)	(12,561)	56,509	56,509
2012	50	11.31	1.03391	75,758	8,019	(2,164)	(10,200)	(12,987)	58,425	58,425
2013	51	12.31	1.03194	78,178	8,275	(2,234)	(10,526)	(13,402)	60,292	60,292
2014	52	13.31	1.03000	80,523	8,523	(2,301)	(10,841)	(13,804)	62,100	62,100
2015	53	14.31	1.03000	82,939	8,779	(2,370)	(11,167)	(14,218)	63,963	63,963
2016	54	15.31	1.03000	85,427	9,042	(2,441)	(11,502)	(14,645)	65,882	65,882
2017	55	16.31	1.03000	87,990	9,313	(2,514)	(11,847)	(15,084)	67,859	67,859
2018	56	17.31	1.03000	90,630	9,593	(2,589)	(12,202)	(15,536)	69,895	69,895
2019	57	18.31	1.03000	93,348	9,881	(2,667)	(12,568)	(16,003)	71,991	71,991
2020	58	19.31	1.03000	96,149	10,177	(2,747)	(12,945)	(16,483)	74,151	72,635
2021	59	20.31	1.03000	99,033	10,482	(2,829)	(13,333)	(16,977)	76,376	72,006
2022	60	21.31	1.03000	102,004	10,797	(2,914)	(13,733)	(17,486)	78,667	71,382
2023	61	22.31	1.03000	105,065	11,121	(3,002)	(14,145)	(18,011)	81,027	70,763
Total				\$1,707,286	\$180,683	(\$48,364)	(\$229,923)	(\$282,869)	\$1,326,813	\$1,303,378

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib.	401(k) Contrib.
Ollellipi.	Tax Nate	reis. Colls.	Rate	Rate
3.0%	13.880%	13.65-20.52%	1.642%	0.000%

Exhibit 3a. Present Value of Lost Pension Benefits
Mrs. Diane Hale-McKinzy
Special Master Worklife

Year	Age	Time Frame	Net Pension Contrib.	Projected Pension	Taxes	Consumption	Net Loss	PV of Net Loss
2001	39	0.31	\$238	\$0	\$0	(\$32)	\$206	\$206
2002	40	1.31	794	0	0	(108)	685	685
2003	41	2.31	835	0	0	(114)	721	721
2004	42	3.31	876	0	0	(120)	757	757
2005	43	4.31	918	0	0	(188)	730	730
2006	44	5.31	960	0	0	(197)	763	763
2007	45	6.31	1,002	0	0	(206)	797	797
2008	46	7.31	1,044	0	0	(214)	830	830
2009	47	8.31	1,086	0	0	(223)	863	863
2010	48	9.31	1,127	0	0	(231)	896	896
2011	49	10.31	1,167	0	0	(240)	928	928
2012	50	11.31	1,207	0	0	(248)	959	959
2013	51	12.31	1,245	0	0	(256)	990	990
2014	52	13.31	1,283	0	0	(263)	1,020	1,020
2015	53	14.31	1,321	0	0	(271)	1,050	1,050
2016	54	15.31	1,361	0	0	(279)	1,082	1,082
2017	55	16.31	1,402	0	0	(288)	1,114	1,114
2018	56	17.31	1,444	0	0	(296)	1,148	1,148
2019	57	18.31	1,487	0	0	(305)	1,182	1,182
2020	58	19.31	1,532	0	0	(314)	1,217	1,193
2021	59	20.31	1,578	0	0	(324)	1,254	1,182
2022	60	21.31	1,625	0	0	(333)	1,292	1,172
2023	61	22.31	1,674	0	0	(343)	1,330	1,162
2024	62	23.31	0	41,966	(5,825)	(7,417)	28,724	24,144
2025	63	24.31	0	42,805	(5,941)	(7,565)	29,299	23,703
2026	64	25.31	0	43,661	(6,060)	(7,716)	29,885	23,269
2027	65	26.31	0	44,534	(6,181)	(7,871)	30,482	22,844
2028	66	27.31	0	45,425	(6,305)	(8,028)	31,092	22,426
2029	67	28.31	0	46,334	(6,431)	(8,189)	31,714	22,016
2030	68	29.31	0	47,261	(6,560)	(8,352)	32,349	21,614
2031	69	30.31	0	48,206	(6,691)	(8,519)	32,996	21,218
2032	70	31.31	0	49,170	(6,825)	(8,690)	33,655	20,830
2033	71	32.31	0	50,153	(6,961)	(8,864)	34,328	20,449
2034	72	33.31	0	51,156	(7,100)	(9,041)	35,015	20,075
2035	73	34.31	0	52,179	(7,242)	(9,222)	35,715	19,708
2036	74	35.31	0	53,223	(7,387)	(9,406)	36,430	19,348
2037	75	36.31	0	54,287	(7,535)	(9,594)	37,158	18,994
2038	76	37.31	0	55,373	(7,686)	(9,786)	37,901	18,647
2039	77	38.31	0	56,480	(7,839)	(9,982)	38,659	18,305
2040	78	39.31	0	57,610	(7,996)	(10,181)	39,432	17,971
2041	79	40.14	0	48,969	(6,797)	(8,654)	33,518	14,749
Total			\$27,207	\$888,792	(\$123,364)	(\$162,471)	\$630,163	\$391,736

 ${\color{red}\textbf{Note:}}\ \textbf{Net pension contribution equal employer minus employe contirubtions.}$ 

**Exhibit 4a.** Loss Estimated Value of Replacement Services **Mrs. Diane Hale-McKinzy** 

Year	Age	Time Frame	Household Services	Care Services	<b>Total Services</b>	Present Value
2001	39	0.31			\$0	\$0
2002	40	1.31			0	0
2003	41	2.31			0	0
2004	42	3.31			0	0
2005	43	4.31			0	0
2006	44	5.31			0	0
2007	45	6.31			0	0
2008	46	7.31			0	0
2009	47	8.31			0	0
2010	48	9.31			0	0
2011	49	10.31			0	0
2012	50	11.31			0	0
2013	51	12.31			0	0
2014	52	13.31			0	0
2015	53	14.31			0	0
2016	54	15.31			0	0
2017	55	16.31			0	0
2018	56	17.31			0	0
Total			\$0	\$0	\$0	\$0

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Joshua Todd Aron** 

December 24, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **February 19, 2003**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Beauzile

Valuation Date	01-Jan-20
Discount Rate	4.2%

## Exhibit 1. Summary of Economic Damages Mr. Joshua Todd Aron

	Present Value
Present Value of Lost Earnings	\$5,344,844
Present Value of Retirement Benefits	261,321
Present Value of Lost Replacement Services	0
Total	\$5,606,165

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
104,376	3.0%	21.600%	2,441	12.486%

Exhibit 2a. Present Value of Lost Earnings Mr. Joshua Todd Aron Special Master Worklife

Year	Age	Time Frame	Age-Specific Growth Factor	Earnings	Benefits	Unempl. Adj.	Taxes	Consumption	Net Earnings	PV of Net Earnings
2001	25	0.31	1.00000	\$32,006	\$736	\$0	(\$6,913)	(\$3,133)	\$22,696	\$22,696
2002	26	1.31	1.08227	112,964	2,642	(2,719)	(23,668)	(10,727)	78,491	78,491
2003	27	2.31	1.08021	122,025	2,854	(2,937)	(25,567)	(11,587)	84,787	84,787
2004	28	3.31	1.07816	131,562	3,077	(3,167)	(27,565)	(12,493)	91,414	91,414
2005	29	4.31	1.07611	141,574	3,311	(3,408)	(29,663)	(13,444)	98,371	98,371
2006	30	5.31	1.07406	152,059	3,556	(3,660)	(31,859)	(14,439)	105,656	105,656
2007	31	6.31	1.07201	163,009	3,812	(3,924)	(34,154)	(15,479)	113,265	113,265
2008	32	7.31	1.06997	174,416	4,079	(4,198)	(36,544)	(16,562)	121,191	121,191
2009	33	8.31	1.06794	186,265	4,356	(4,483)	(39,026)	(17,687)	129,424	129,424
2010	34	9.31	1.06591	198,541	4,643	(4,779)	(41,598)	(18,853)	137,954	137,954
2011	35	10.31	1.06388	211,223	4,939	(5,084)	(44,255)	(20,057)	146,766	146,766
2012	36	11.31	1.06185	224,288	5,245	(5,399)	(46,993)	(21,298)	155,844	155,844
2013	37	12.31	1.05983	237,707	5,559	(5,722)	(49,804)	(22,572)	165,168	165,168
2014	38	13.31	1.05781	251,450	5,880	(6,052)	(52,684)	(23,877)	174,717	174,717
2015	39	14.31	1.05580	265,481	6,208	(6,390)	(55,624)	(25,209)	184,467	184,467
2016	40	15.31	1.05379	279,762	6,542	(6,734)	(58,616)	(26,565)	194,389	194,389
2017	41	16.31	1.05179	294,250	6,881	(7,083)	(61,651)	(27,941)	204,456	204,456
2018	42	17.31	1.04979	308,900	7,224	(7,435)	(64,721)	(29,332)	214,635	214,635
2019	43	18.31	1.04779	323,662	7,569	(7,791)	(67,814)	(30,734)	224,892	224,892
2020	44	19.31	1.04579	338,483	7,915	(8,147)	(70,919)	(32,141)	235,191	230,024
2021	45	20.31	1.04380	353,310	8,262	(8,504)	(74,026)	(33,549)	245,494	230,422
2022	46	21.31	1.04182	368,085	8,608	(8,860)	(77,121)	(34,952)	255,759	230,382
2023	47	22.31	1.03984	382,748	8,951	(9,213)	(80,193)	(36,345)	265,948	229,903
2024	48	23.31	1.03786	397,237	9,289	(9,562)	(83,229)	(37,721)	276,016	228,989
2025	49	24.31	1.03588	411,491	9,623	(9,905)	(86,216)	(39,074)	285,919	227,644
2026	50	25.31	1.03391	425,445	9,949	(10,240)	(89,139)	(40,399)	295,615	225,877
2027	51	26.31	1.03194	439,034	10,267	(10,568)	(91,986)	(41,689)	305,058	223,697
2028	52	27.31	1.03000	452,205	10,575	(10,885)	(94,746)	(42,940)	314,209	221,121
2029	53	28.31	1.03000	465,772	10,892	(11,211)	(97,588)	(44,228)	323,636	218,574
2030	54	29.31	1.03000	479,745	11,219	(11,547)	(100,516)	(45,555)	333,345	216,057
2031	55	30.31	1.03000	494,136	11,555	(11,894)	(103,531)	(46,922)	343,345	213,569
Total			_	\$8,818,836	\$206,217	(\$211,499)	(\$1,847,930)	(\$837,506)	\$6,128,118	\$5,344,844

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	0.000%	12.486%	4.000%	0.000%

Exhibit 3a. Present Value of Lost Pension Benefits Mr. Joshua Todd Aron Special Master Worklife

Year	Age	Time Frame	Pension Contrib.	401(k)	Taxes	Consumption	Net Loss	PV of Net Loss
2001	25	0.31	\$1,280	\$0	\$0	(\$160)	\$1,120	\$1,120
2002	26	1.31	4,519	0	0	(564)	3,954	3,954
2003	27	2.31	4,735	0	0	(591)	4,143	4,143
2004	28	3.31	5,105	0	0	(637)	4,467	4,467
2005	29	4.31	5,493	0	0	(686)	4,807	4,807
2006	30	5.31	5,900	0	0	(737)	5,163	5,163
2007	31	6.31	6,325	0	0	(790)	5,535	5,535
2008	32	7.31	6,767	0	0	(845)	5,922	5,922
2009	33	8.31	7,227	0	0	(902)	6,325	6,325
2010	34	9.31	7,703	0	0	(962)	6,742	6,742
2011	35	10.31	8,195	0	0	(1,023)	7,172	7,172
2012	36	11.31	8,702	0	0	(1,087)	7,616	7,616
2013	37	12.31	9,223	0	0	(1,152)	8,071	8,071
2014	38	13.31	9,756	0	0	(1,218)	8,538	8,538
2015	39	14.31	10,301	0	0	(1,286)	9,014	9,014
2016	40	15.31	10,855	0	0	(1,355)	9,499	9,499
2017	41	16.31	11,417	0	0	(1,426)	9,991	9,991
2018	42	17.31	11,985	0	0	(1,497)	10,489	10,489
2019	43	18.31	12,558	0	0	(1,568)	10,990	10,990
2020	44	19.31	13,133	0	0	(1,640)	11,493	11,241
2021	45	20.31	13,708	0	0	(1,712)	11,997	11,260
2022	46	21.31	14,282	0	0	(1,783)	12,498	11,258
2023	47	22.31	14,851	0	0	(1,854)	12,996	11,235
2024	48	23.31	15,413	0	0	(1,925)	13,488	11,190
2025	49	24.31	15,966	0	0	(1,994)	13,972	11,124
2026	50	25.31	16,507	0	0	(2,061)	14,446	11,038
2027	51	26.31	17,035	0	0	(2,127)	14,908	10,932
2028	52	27.31	17,546	0	0	(2,191)	15,355	10,806
2029	53	28.31	18,072	0	0	(2,257)	15,815	10,681
2030	54	29.31	18,614	0	0	(2,324)	16,290	10,558
2031	55	30.31	19,172	0	0	(2,394)	16,779	10,437
Total			\$342,345	\$0	\$0	(\$42,747)	\$299,598	\$261,321

**Exhibit 4a.** Loss Estimated Value of Replacement Services **Mr. Joshua Todd Aron** 

Year	Age	Time Frame	Household Services	Care Services	Total Services	Present Value
2001	25	0.31			\$0	\$0
2002	26	1.31			0	0
2003	27	2.31			0	0
2004	28	3.31			0	0
2005	29	4.31			0	0
2006	30	5.31			0	0
2007	31	6.31			0	0
2008	32	7.31			0	0
2009	33	8.31			0	0
2010	34	9.31			0	0
2011	35	10.31			0	0
2012	36	11.31			0	0
2013	37	12.31			0	0
2014	38	13.31			0	0
2015	39	14.31			0	0
2016	40	15.31			0	0
2017	41	16.31			0	0
2018	42	17.31			0	0
Total	•		\$0	\$0	\$0	\$0

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. William Spitz** 

December 28, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **March 25, 2003**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Be. uz

Valuation Date	01-Jan-20
Discount Rate	3.9%

**Exhibit 1.** Summary of Economic Damages **Mr. William Spitz** 

	Present Value
Present Value of Lost Earnings	\$2,555,698
Present Value of Retirement Benefits	116,806
Present Value of Lost Replacement Services	0
Total	\$2,672,504

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<b>Base Salary</b>	Unempl.	Tax Rate	Benefits	Pers. Consump.
233,730	3.0%	30.390%	10,357	12.486%

#### Exhibit 2a. Present Value of Lost Earnings Mr. William Spitz Special Master Worklife

Year	Age	Time Frame	Age-Specific Growth Factor	Earnings	Benefits	Unempl. Adj.	Taxes	Consumption	Net Earnings	PV of Net Earnings
2001	49	0.31	1.00000	\$71,671	\$3,176	\$0	(\$21,781)	(\$6,230)	\$46,837	\$46,837
2002	50	1.31	1.03391	241,656	10,709	(5,270)	(71,236)	(20,374)	155,484	155,484
2003	51	2.31	1.03194	249,375	11,051	(5,438)	(73,512)	(21,025)	160,451	160,451
2004	52	3.31	1.03000	256,856	11,382	(5,602)	(75,717)	(21,656)	165,264	165,264
2005	53	4.31	1.03000	264,562	11,724	(5,770)	(77,988)	(22,305)	170,222	170,222
2006	54	5.31	1.03000	272,499	12,075	(5,943)	(80,328)	(22,975)	175,329	175,329
2007	55	6.31	1.03000	280,674	12,438	(6,121)	(82,738)	(23,664)	180,589	180,589
2008	56	7.31	1.03000	289,094	12,811	(6,305)	(85,220)	(24,374)	186,006	186,006
2009	57	8.31	1.03000	297,767	13,195	(6,494)	(87,777)	(25,105)	191,587	191,587
2010	58	9.31	1.03000	306,700	13,591	(6,689)	(90,410)	(25,858)	197,334	197,334
2011	59	10.31	1.03000	315,901	13,999	(6,889)	(93,122)	(26,634)	203,254	203,254
2012	60	11.31	1.03000	325,378	14,419	(7,096)	(95,916)	(27,433)	209,352	209,352
2013	61	12.31	1.03000	335,139	14,851	(7,309)	(98,793)	(28,256)	215,632	215,632
2014	62	13.31	1.03000	345,193	15,297	(7,528)	(101,757)	(29,104)	222,101	222,101
2015	63	13.64	1.03000	118,517	5,252	(2,585)	(34,937)	(9,992)	76,255	76,255
Total				\$3,970,982	\$175,969	(\$85,038)	(\$1,171,232)	(\$334,984)	\$2,555,698	\$2,555,698

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Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	30.390%	12.486%	3.463%	0.000%

# Exhibit 3a. Present Value of Lost Pension Benefits Mr. William Spitz Special Master Worklife

Year	Age	Time Frame	Pension Contrib.	401(K)	Taxes	Consumption	Net Loss	PV of Net Loss
2001	49	0.31	\$2,482	\$0	\$0	(\$310)	\$2,172	\$2,172
2002	50	1.31	8,118	0	0	(1,014)	7,104	7,104
2003	51	2.31	8,377	0	0	(1,046)	7,331	7,331
2004	52	3.31	8,629	0	0	(1,077)	7,551	7,551
2005	53	4.31	8,887	0	0	(1,110)	7,778	7,778
2006	54	5.31	9,154	0	0	(1,143)	8,011	8,011
2007	55	6.31	9,429	0	0	(1,177)	8,251	8,251
2008	56	7.31	9,712	0	0	(1,213)	8,499	8,499
2009	57	8.31	10,003	0	0	(1,249)	8,754	8,754
2010	58	9.31	10,303	0	0	(1,286)	9,017	9,017
2011	59	10.31	10,612	0	0	(1,325)	9,287	9,287
2012	60	11.31	10,930	0	0	(1,365)	9,566	9,566
2013	61	12.31	11,258	0	0	(1,406)	9,853	9,853
2014	62	13.31	11,596	0	0	(1,448)	10,148	10,148
2015	63	13.64	3,981	0	0	(497)	3,484	3,484
Total		•	\$133,472	\$0	\$0	(\$16,666)	\$116,806	\$116,806

**Exhibit 4a.** Loss Estimated Value of Replacement Services **Mr. William Spitz** 

Year	Age	Time Frame	Household Services	Care Services	Total Services	Present Value
2001	49	0.31			\$0	\$0
2002	50	1.31			0	0
2003	51	2.31			0	0
2004	52	3.31			0	0
2005	53	4.31			0	0
2006	54	5.31			0	0
2007	55	6.31			0	0
2008	56	7.31			0	0
2009	57	8.31			0	0
2010	58	9.31			0	0
2011	59	10.31			0	0
2012	60	11.31			0	0
2013	61	12.31			0	0
2014	62	13.31			0	0
2015	63	14.31			0	0
2016	64	15.31			0	0
2017	65	16.31			0	0
2018	66	17.31			0	0
2019	67	18.31			0	0
2020	68	19.31			0	0
2021	69	20.31			0	0
2022	70	21.31			0	0
2023	71	22.31			0	0
2024	72	22.81			0	0
Total			\$0	\$0	\$0	\$0

28 Penny Lane Binghamton, NY 13905

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#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of

The Estate of Mr. Andrew Desperito

December 26, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **February 18, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

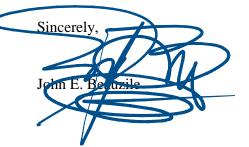
For replacement services, the amount that was awarded by **The Fund** was \$330,000 higher than that set forth in their Valuation Model. The amount computed by the model was \$232,564 whereas the amount that **The Fund** determined to be the appropriate value of lost services was \$562,564. In order to calculate the present value of lost replacement services, we converted the monthly values in **The Fund**'s valuation model to the annual amounts that could have produced the actual amount paid, assuming all else remained the same. This amount was set equal to the model's amount multiplied by 2.419 (or \$562,564 divided by \$232,564).

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.



VALUATION DATE	01-Jan-20
DISCOUNT RATE	3.9%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES MR. ANDREW DESPERITO

Total	\$3,592,905
Present Value of Lost Replacement Services	609,826
Present Value of Retirement Benefits	485,345
Present Value of Lost Earnings	\$2,497,734
	PRESENT VALUE

## Case 1:03-md-01570-GBD-SN Document 5563-2 Filed 01/15/20 Page 42 of 140

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
92,825	3.0%	10.760%	7,602	5.42-12.49%

## **EXHIBIT 2a.** PRESENT VALUE OF LOST EARNINGS MR. ANDREW DESPERITO

SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	EARNINGS	BENEFITS	UNEMPL. ADJ.	TAXES	CONSUMPTION	NET EARNINGS	PV OF NET EARNINGS
2001	44	0.31	1.00000	\$28,464	\$2,331	\$0	(\$3,063)	(\$1,376)	\$26,356	\$26,356
2002	45	1.31	1.04380	96,892	7,935	(2,806)	(10,113)	(4,545)	87,362	87,362
2003	46	2.31	1.04182	100,943	8,267	(2,924)	(10,536)	(4,735)	91,016	91,016
2004	47	3.31	1.03984	104,964	8,596	(3,040)	(10,955)	(4,923)	94,641	94,641
2005	48	4.31	1.03786	108,938	8,921	(3,155)	(11,370)	(5,110)	98,224	98,224
2006	49	5.31	1.03588	112,847	9,241	(3,269)	(11,778)	(5,293)	101,749	101,749
2007	50	6.31	1.03391	116,674	9,555	(3,379)	(12,177)	(5,473)	105,199	105,199
2008	51	7.31	1.03194	120,400	9,860	(3,487)	(12,566)	(6,961)	107,246	107,246
2009	52	8.31	1.03000	124,012	10,156	(3,592)	(12,943)	(7,170)	110,463	110,463
2010	53	9.31	1.03000	127,733	10,460	(3,700)	(13,332)	(7,385)	113,777	113,777
2011	54	10.31	1.03000	131,565	10,774	(3,811)	(13,732)	(9,911)	114,886	114,886
2012	55	11.31	1.03000	135,512	11,097	(3,925)	(14,144)	(10,209)	118,332	118,332
2013	56	12.31	1.03000	139,577	11,430	(4,043)	(14,568)	(10,515)	121,882	121,882
2014	57	13.31	1.03000	143,764	11,773	(4,164)	(15,005)	(10,830)	125,539	125,539
2015	58	14.31	1.03000	148,077	12,126	(4,289)	(15,455)	(16,005)	124,455	124,455
2016	59	15.31	1.03000	152,520	12,490	(4,418)	(15,919)	(16,485)	128,188	128,188
2017	60	16.31	1.03000	157,095	12,865	(4,550)	(16,396)	(16,980)	132,034	132,034
2018	61	17.31	1.03000	161,808	13,251	(4,687)	(16,888)	(17,489)	135,995	135,995
2019	62	18.31	1.03000	166,662	13,648	(4,827)	(17,395)	(18,014)	140,075	140,075
2020	63	19.31	1.03000	171,662	14,058	(4,972)	(17,917)	(18,554)	144,277	141,326
2021	64	20.31	1.03000	176,812	14,480	(5,121)	(18,454)	(19,111)	148,605	140,102
2022	65	21.31	1.03000	182,115	14,914	(5,275)	(19,008)	(19,684)	153,063	138,888
Total	·		·	\$2,909,039	\$238,230	(\$83,434)	(\$303,714)	(\$236,758)	\$2,523,363	\$2,497,734

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	10.760%	5.42-12.49%	4.000%	0.000%

### **EXHIBIT 3A.** PRESENT VALUE OF LOST PENSION BENEFITS **MR. ANDREW DESPERITO**SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PENSION CONTRIB.	NET PENSION (PROJECTED-VESTED)	Taxes	CONSUMPTION	NET LOSS	PV of Net Loss
2001	44	0.31	(\$413)	\$0	\$0	\$22	(\$390)	(\$390)
2002	45	1.31	(1,405)	0	0	76	(1,329)	(1,329)
2003	46	2.31	(1,464)	0	0	79	(1,385)	(1,385)
2004	47	3.31	(887)	(16,160)	1,739	830	(14,479)	(14,479)
2005	48	4.31	0	(38,785)	4,173	1,875	(32,736)	(32,736)
2006	49	5.31	0	(38,785)	4,173	1,875	(32,736)	(32,736)
2007	50	6.31	0	(38,785)	4,173	1,875	(32,736)	(32,736)
2008	51	7.31	0	(38,785)	4,173	2,312	(32,300)	(32,300)
2009	52	8.31	4,961	(9,238)	994	219	(3,064)	(3,064)
2010	53	9.31	5,198	32,127	(3,457)	(2,262)	31,606	31,606
2011	54	10.31	5,436	32,127	(3,457)	(2,968)	31,138	31,138
2012	55	11.31	5,674	32,127	(3,457)	(2,989)	31,355	31,355
2013	56	12.31	5,911	32,127	(3,457)	(3,009)	31,572	31,572
2014	57	13.31	6,146	31,947	(3,437)	(3,016)	31,640	31,640
2015	58	14.31	6,379	31,767	(3,418)	(4,336)	30,392	30,392
2016	59	15.31	6,608	31,587	(3,399)	(4,345)	30,451	30,451
2017	60	16.31	6,832	31,407	(3,379)	(4,353)	30,507	30,507
2018	61	17.31	7,050	31,227	(3,360)	(4,360)	30,557	30,557
2019	62	18.31	7,262	31,227	(3,360)	(4,386)	30,742	30,742
2020	63	19.31	7,480	31,227	(3,360)	(4,414)	30,933	30,301
2021	64	20.31	7,704	31,227	(3,360)	(4,442)	31,130	29,348
2022	65	21.31	7,935	31,227	(3,360)	(4,470)	31,332	28,430
2023	66	22.31	0	31,227	(3,360)	(3,480)	24,387	21,298
2024	67	23.31	0	31,227	(3,360)	(3,480)	24,387	20,499
2025	68	24.31	0	31,227	(3,360)	(3,480)	24,387	19,729
2026	69	25.31	0	31,227	(3,360)	(3,480)	24,387	18,989
2027	70	26.31	0	31,227	(3,360)	(3,480)	24,387	18,276
2028	71	27.31	0	31,227	(3,360)	(3,480)	24,387	17,590
2029	72	28.31	0	31,227	(3,360)	(3,480)	24,387	16,930
2030	73	29.31	0	31,227	(3,360)	(3,480)	24,387	16,294
2031	74	30.31	0	31,227	(3,360)	(3,480)	24,387	15,683
2032	75	31.31	0	31,227	(3,360)	(3,480)	24,387	15,094
2033	76	32.31	0	31,227	(3,360)	(3,480)	24,387	14,527
2034	77	33.31	0	31,227	(3,360)	(3,480)	24,387	13,982
2035	78	34.31	0	31,227	(3,360)	(3,480)	24,387	13,457
2036	79	35.31	0	31,227	(3,360)	(3,480)	24,387	12,952
2037	80	35.56	0	7,807	(840)	(870)	6,097	3,161
Total			\$86,406	\$675,797	(\$72,716)	(\$89,770)	\$599,718	\$485,345

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES **MR. ANDREW DESPERITO** 

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	TOTAL SERVICES	PRESENT VALUE
2001	44	0.31	\$10,272	\$5,839	\$16,111	\$16,111
2002	45	1.31	33,498	19,042	52,540	52,540
2003	46	2.31	33,498	19,042	52,540	52,540
2004	47	3.31	33,498	19,042	52,540	52,540
2005	48	4.31	33,498	19,042	52,540	52,540
2006	49	5.31	33,498	19,042	52,540	52,540
2007	50	6.31	36,338	15,362	51,700	51,700
2008	51	7.31	38,897	12,046	50,943	50,943
2009	52	8.31	38,897	12,046	50,943	50,943
2010	53	9.31	36,423	10,565	46,988	46,988
2011	54	10.31	33,324	8,708	42,032	42,032
2012	55	11.31	33,324	8,708	42,032	42,032
2013	56	12.31	33,324	8,708	42,032	42,032
2014	57	12.41	3,444	900	4,344	4,344
Total		_	\$431,731	\$178,094	\$609,826	\$609,826

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Patrick Jude Murphy** 

December 27, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **March 23, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Be, uzi

VALUATION DATE	01-Jan-20
DISCOUNT RATE	3.9%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES MR. PATRICK JUDE MURPHY

	PRESENT VALUE
Present Value of Lost Earnings	\$4,217,369
Present Value of Retirement Benefits	320,225
Present Value of Lost Replacement Services	395,422_
Total	\$4,933,016

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Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
123,542	3.0%	18.810%	2,400	6.68-12.49%

#### EXHIBIT 2A. PRESENT VALUE OF LOST EARNINGS MR. PATRICK JUDE MURPHY SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	EARNINGS	MILITARY PAY	BENEFITS	UNEMPL. ADJ.	Taxes	CONSUMPTION	NET Earnings	PV of NET EARNINGS
2001	38	0.31	1.00000	\$17,841	\$4,009	\$736	\$0	(\$4,110)	(\$1,185)	\$17,291	\$17,291
2002	39	1.31	1.00000	123,542	13,075	2,400	(3,386)	(25,001)	(7,207)	103,424	103,424
2003	40	2.31	1.07406	132,692	13,206	2,578	(3,616)	(26,695)	(7,695)	110,469	110,469
2004	41	3.31	1.07201	142,247	13,338	2,764	(3,857)	(28,463)	(8,205)	117,824	117,824
2005	42	4.31	1.06997	152,201	13,471	2,957	(4,107)	(30,304)	(8,736)	125,482	125,482
2006	43	5.31	1.06794	162,541	13,606	3,158	(4,367)	(32,216)	(9,287)	133,434	133,434
2007	44	6.31	1.06591	173,253	13,742	3,366	(4,637)	(34,196)	(9,858)	141,670	141,670
2008	45	7.31	1.06388	184,320	13,879	3,581	(4,915)	(36,241)	(10,448)	150,177	150,177
2009	46	8.31	1.06185	195,721	14,018	3,803	(5,201)	(38,347)	(11,055)	158,938	158,938
2010	47	9.31	1.05983	207,431	14,158	4,030	(5,495)	(40,510)	(11,678)	167,935	167,935
2011	48	10.31	1.05781	219,424	14,300	4,263	(5,797)	(42,725)	(12,317)	177,148	177,148
2012	49	11.31	1.05580	231,668	14,443	4,501	(6,104)	(44,986)	(12,969)	186,553	186,553
2013	50	12.31	1.05379	244,130	14,587	4,743	(6,417)	(47,287)	(13,632)	196,124	196,124
2014	51	13.31	1.05179	256,773	14,733	4,989	(6,735)	(49,621)	(14,305)	205,834	205,834
2015	52	14.31	1.04979	269,556	14,881	5,237	(7,056)	(51,981)	(19,526)	211,111	211,111
2016	53	15.31	1.04779	282,438	15,029	5,487	(7,379)	(54,360)	(20,420)	220,796	220,796
2017	54	16.31	1.04579	295,372	15,180	5,739	(7,704)	(56,748)	(21,317)	230,522	230,522
2018	55	17.31	1.04380	308,310	15,332	5,990	(8,029)	(59,137)	(31,872)	230,593	230,593
2019	56	18.31	1.04182	321,203	15,485	6,240	(8,353)	(61,518)	(33,156)	239,901	239,901
2020	57	19.31	1.03984	333,998	15,640	6,489	(8,674)	(63,882)	(34,430)	249,141	244,046
2021	58	20.31	1.03786	346,642	15,796	6,735	(8,992)	(66,219)	(35,689)	258,274	243,495
2022	59	21.31	1.03588	359,080	15,954	6,976	(9,305)	(68,518)	(36,928)	267,260	242,510
2023	60	22.31	1.03391	371,257	16,114	7,213	(9,611)	(70,769)	(38,142)	276,062	241,093
2024	61	22.81	1.03194	191,921	8,153	3,729	(4,964)	(36,551)	(19,699)	142,588	120,997
Total				\$5,523,561	\$332,130	\$107,702	(\$144,700)	(\$1,070,387)	(\$429,755)	\$4,318,552	\$4,217,369

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	18.810%	6.68-12.49%	4.000%	0.000%

# **EXHIBIT 3A.** PRESENT VALUE OF LOST PENSION BENEFITS MR. PATRICK JUDE MURPHY SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PENSION CONTRIB.	MILITARY RESERVES PENSION	Taxes	CONSUMPTION	NET LOSS	PV of NET Loss
2001	38	0.31	\$714	\$0	\$0	(\$48)	\$666	\$666
2002	39	1.31	4,793	0	0	(320)	4,473	4,473
2003	40	2.31	5,148	0	0	(344)	4,805	4,805
2004	41	3.31	5,519	0	0	(369)	5,151	5,151
2005	42	4.31	5,905	0	0	(394)	5,511	5,511
2006	43	5.31	6,307	0	0	(421)	5,885	5,885
2007	44	6.31	6,722	0	0	(449)	6,273	6,273
2008	45	7.31	7,152	0	0	(478)	6,674	6,674
2009	46	8.31	7,594	0	0	(507)	7,087	7,087
2010	47	9.31	8,048	0	0	(538)	7,511	7,511
2011	48	10.31	8,514	0	0	(569)	7,945	7,945
2012	49	11.31	8,989	0	0	(600)	8,388	8,388
2013	50	12.31	9,472	0	0	(633)	8,840	8,840
2014	51	13.31	9,963	0	0	(665)	9,297	9,297
2015	52	14.31	10,459	0	0	(910)	9,549	9,549
2016	53	15.31	10,959	0	0	(954)	10,005	10,005
2017	54	16.31	11,460	0	0	(997)	10,463	10,463
2018	55	17.31	11,962	0	0	(1,494)	10,469	10,469
2019	56	18.31	12,463	0	0	(1,556)	10,907	10,907
2020	57	19.31	12,959	0	0	(1,618)	11,341	11,109
2021	58	20.31	13,450	0	0	(1,679)	11,770	11,097
2022	59	21.31	13,932	0	0	(1,740)	12,193	11,064
2023	60	22.31	14,405	9,086	(1,709)	(2,720)	19,062	16,647
2024	61	23.31	7,447	15,576	(2,930)	(2,509)	17,584	14,780
2025	62	24.31	. 0	15,576	(2,930)	(1,579)	11,067	8,953
2026	63	25.31	0	15,576	(2,930)	(1,579)	11,067	8,617
2027	64	26.31	0	15,576	(2,930)	(1,579)	11,067	8,294
2028	65	27.31	0	15,576	(2,930)	(1,579)	11,067	7,982
2029	66	28.31	0	15,576	(2,930)	(1,579)	11,067	7,683
2030	67	29.31	0	15,576	(2,930)	(1,579)	11,067	7,394
2031	68	30.31	0	15,576	(2,930)	(1,579)	11,067	7,117
2032	69	31.31	0	15,576	(2,930)	(1,579)	11,067	6,850
2033	70	32.31	0	15,576	(2,930)	(1,579)	11,067	6,593
2034	71	33.31	0	15,576	(2,930)	(1,579)	11,067	6,345
2035	72	34.31	0	15,576	(2,930)	(1,579)	11,067	6,107
2036	73	35.31	0	15,576	(2,930)	(1,579)	11,067	5,878
2037	74	36.31	0	15,576	(2,930)	(1,579)	11,067	5,657
2038	75	37.31	0	15,576	(2,930)	(1,579)	11,067	5,445
2039	76	38.31	0	15,576	(2,930)	(1,579)	11,067	5,240
2040	77	39.31	0	15,576	(2,930)	(1,579)	11,067	5,044
2041	78	40.31	0	15,576	(2,930)	(1,579)	11,067	4,854
2042	79	40.64	0	5,192	(977)	(526)	3,689	1,577
Total		_	\$214,336	\$294,646	(\$55,423)	(\$49,881)	\$403,677	\$320,225

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES MR. PATRICK JUDE MURPHY

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	TOTAL SERVICES	PRESENT VALUE
2001	38	0.31	\$4,931	\$1,527	\$6,458	\$6,458
2002	39	1.31	16,080	4,980	21,060	21,060
2003	40	2.31	16,080	4,980	21,060	21,060
2004	41	3.31	16,080	4,980	21,060	21,060
2005	42	4.31	16,080	4,980	21,060	21,060
2006	43	5.31	16,080	4,980	21,060	21,060
2007	44	6.31	16,080	4,980	21,060	21,060
2008	45	7.31	16,080	4,980	21,060	21,060
2009	46	8.31	16,080	4,980	21,060	21,060
2010	47	9.31	16,080	4,980	21,060	21,060
2011	48	10.31	16,080	4,980	21,060	21,060
2012	49	11.31	16,080	4,980	21,060	21,060
2013	50	12.31	16,080	4,980	21,060	21,060
2014	51	13.31	14,843	4,239	19,082	19,082
2015	52	14.31	13,776	3,600	17,376	17,376
2016	53	15.31	13,776	3,600	17,376	17,376
2017	54	16.31	10,925	1,970	12,894	12,894
2018	55	17.31	9,936	1,404	11,340	11,340
2019	56	18.31	9,936	1,404	11,340	11,340
2020	57	19.31	9,936	1,404	11,340	11,108
2021	58	20.31	9,936	1,404	11,340	10,691
2022	59	21.31	9,936	1,404	11,340	10,290
2023	60	22.31	9,936	1,404	11,340	9,904
2024	61	22.81	5,001	707	5,708	4,844
Total			\$315,828	\$83,826	\$399,654	\$395,422

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Steven Strauss** 

December 28, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **November 19, 2003**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Be. uzi

Valuation Date	01-Jan-20
Discount Rate	3.9%

## Exhibit 1. Summary of Economic Damages Mr. Steven Strauss

	Present Value
Present Value of Lost Earnings	\$2,232,573
Present Value of Retirement Benefits	234,775
Present Value of Lost Replacement Services	0
Total	\$2,467,348

## Case 1:03-md-01570-GBD-SN Document 5563-2 Filed 01/15/20 Page 54 of 140

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
233,287	3.0%	30.390%	15,621	8.7-12.49%

#### Exhibit 2a. Present Value of Lost Earnings Mr. Steven Strauss Special Master Worklife

Year	Age	Time Frame	Age-Specific Growth Factor	Earnings	Benefits (Med. & Other)	Unempl. Adj.	Taxes	Consumption	Net Earnings	PV of Net Earnings
2001	52	0.31	1.00000	\$71,535	\$5,440	\$0	(\$21,739)	(\$4,334)	\$50,902	\$50,902
2002	53	1.31	1.03000	240,285	18,273	(5,399)	(70,832)	(14,120)	168,207	168,207
2003	54	2.31	1.03000	247,494	18,821	(5,561)	(72,957)	(14,543)	173,253	173,253
2004	55	3.31	1.03000	254,919	19,386	(5,728)	(75,146)	(21,492)	171,938	171,938
2005	56	4.31	1.03000	262,566	19,967	(5,900)	(77,400)	(22,137)	177,096	177,096
2006	57	5.31	1.03000	270,443	20,566	(6,077)	(79,722)	(22,801)	182,409	182,409
2007	58	6.31	1.03000	278,556	21,183	(6,259)	(82,114)	(23,485)	187,881	187,881
2008	59	7.31	1.03000	286,913	21,819	(6,447)	(84,577)	(24,190)	193,518	193,518
2009	60	8.31	1.03000	295,520	22,473	(6,641)	(87,114)	(24,916)	199,323	199,323
2010	61	9.31	1.03000	304,386	23,148	(6,840)	(89,728)	(25,663)	205,303	205,303
2011	62	10.31	1.03000	313,518	23,842	(7,045)	(92,420)	(26,433)	211,462	211,462
2012	63	11.31	1.03000	322,923	24,557	(7,256)	(95,192)	(27,226)	217,806	217,806
2013	64	11.72	1.03000	138,588	10,539	(3,114)	(40,853)	(11,684)	93,475	93,475
Total		·		\$3,287,646	\$250,015	(\$72,270)	(\$969,794)	(\$263,024)	\$2,232,573	\$2,232,573

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	30.390%	8.7-12.49%	0.000%	0.000%

Exhibit 3a. Present Value of Lost Pension Benefits
Mr. Steven Strauss
Special Master Worklife

Year	Age	Time Frame	Projected Pension	Vested Pension	Taxes	Consumption	Net Loss	PV of Net Loss
2001	52	0.31	\$0	\$0	\$0	\$0	\$0	\$0
2002	53	1.31	0	0	0	0	0	0
2003	54	2.31	0	0	0	0	0	0
2004	55	3.31	0	0	0	0	0	0
2005	56	4.31	0	0	0	0	0	0
2006	57	5.31	0	0	0	0	0	0
2007	58	6.31	0	0	0	0	0	0
2008	59	7.31	0	0	0	0	0	0
2009	60	8.31	0	0	0	0	0	0
2010	61	9.31	0	0	0	0	0	0
2011	62	10.31	0	0	0	0	0	0
2012	63	11.31	0	0	0	0	0	0
2013	64	12.31	0	0	0	0	0	0
2014	65	13.31	4,304	(1,904)	(729)	(209)	1,462	1,462
2015	66	14.31	51,647	(22,842)	(8,754)	(2,504)	17,547	17,547
2016	67	15.31	51,647	(22,842)	(8,754)	(2,504)	17,547	17,547
2017	68	16.31	51,647	(22,842)	(8,754)	(2,504)	17,547	17,547
2018	69	17.31	51,647	(22,842)	(8,754)	(2,504)	17,547	17,547
2019	70	18.31	51,647	(22,842)	(8,754)	(2,504)	17,547	17,547
2020	71	19.31	51,647	(22,842)	(8,754)	(2,504)	17,547	17,189
2021	72	20.31	51,647	(22,842)	(8,754)	(2,504)	17,547	16,543
2022	73	21.31	51,647	(22,842)	(8,754)	(2,504)	17,547	15,922
2023	74	22.31	51,647	(22,842)	(8,754)	(2,504)	17,547	15,325
2024	75	23.31	51,647	(22,842)	(8,754)	(2,504)	17,547	14,750
2025	76	24.31	51,647	(22,842)	(8,754)	(2,504)	17,547	14,196
2026	77	25.31	51,647	(22,842)	(8,754)	(2,504)	17,547	13,663
2027	78	26.31	51,647	(22,842)	(8,754)	(2,504)	17,547	13,150
2028	79	27.31	51,647	(22,842)	(8,754)	(2,504)	17,547	12,657
2029	80	28.31	51,647	(22,842)	(8,754)	(2,504)	17,547	12,182
Total			\$779,009	(\$344,534)	(\$132,037)	(\$37,764)	\$264,674	\$234,775

Exhibit 4a. Loss Estimated Value of Replacement Services

Mr. Steven Strauss

Year	Age	Time Frame	Household Services	Care Services	Total Services	Present Value
2001	52	0.31			\$0	\$0
2002	53	1.31			0	0
2003	54	2.31			0	0
2004	55	3.31			0	0
2005	56	4.31			0	0
2006	57	5.31			0	0
2007	58	6.31			0	0
2008	59	7.31			0	0
2009	60	8.31			0	0
2010	61	9.31			0	0
2011	62	10.31			0	0
2012	63	11.31			0	0
2013	64	12.31			0	0
2014	65	13.31			0	0
2015	66	14.31			0	0
2016	67	15.31			0	0
2017	68	16.31			0	0
2018	69	17.31			0	0
2019	70	18.31			0	0
2020	71	19.31			0	0
2021	72	20.31			0	0
2022	73	21.31			0	0
2023	74	22.31			0	0
2024	75	22.81			0	0
Total			\$0	\$0	\$0	\$0

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Paul J. Friedman** 

December 26, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **March 5, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

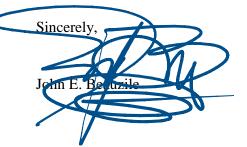
For replacement services, the amount that was awarded by **The Fund** was \$200,000 higher than that set forth in their Valuation Model. The amount computed by the model was \$548,973, whereas the amount that **The Fund** determined to be the appropriate value of lost services was \$748,973. In order to calculate the present value of lost replacement services, we converted the monthly values in **The Fund**'s valuation model to the annual amounts that could have produced the actual amount paid, assuming all else remained the same. This amount was set equal to the model's amount multiplied by 1.3643 (or \$748,973 divided by \$548,973).

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.



VALUATION DATE	01-Jan-20
DISCOUNT RATE	3.9%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES MR. PAUL J. FRIEDMAN

	PRESENT VALUE
Present Value of Lost Earnings	\$4,464,574
Present Value of Retirement Benefits	196,411
Present Value of Lost Replacement Services	847,520_
Total	\$5,508,506

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Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
216.350	3.0%	27.480%	15.360	8.703%

## **EXHIBIT 2A.** PRESENT VALUE OF LOST EARNINGS MR. PAUL J. FRIEDMAN

SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	EARNINGS	BENEFITS	UNEMPL. ADJ.	Taxes	CONSUMPTION	NET EARNINGS	PV OF NET EARNINGS
2001	45	0.31	1.00000	\$66,119	\$4,710	\$0	(\$18,170)	(\$4,173)	\$48,487	\$48,487
2002	46	1.31	1.02655	222,094	16,002	(5,180)	(59,200)	(13,596)	160,120	160,120
2003	47	2.31	1.07723	239,246	16,640	(5,567)	(63,773)	(14,646)	171,900	171,900
2004	48	3.31	1.16310	278,267	17,270	(6,430)	(74,174)	(17,035)	197,898	197,898
2005	49	4.31	1.03588	288,252	17,889	(6,660)	(76,835)	(17,646)	204,999	204,999
2006	50	5.31	1.03391	298,027	18,496	(6,886)	(79,441)	(18,245)	211,951	211,951
2007	51	6.31	1.03194	307,547	19,087	(7,106)	(81,978)	(18,828)	218,721	218,721
2008	52	7.31	1.03000	316,773	19,659	(7,319)	(84,438)	(19,392)	225,283	225,283
2009	53	8.31	1.03000	326,276	20,249	(7,539)	(86,971)	(19,974)	232,041	232,041
2010	54	9.31	1.03000	336,064	20,857	(7,765)	(89,580)	(20,573)	239,003	239,003
2011	55	10.31	1.03000	346,146	21,482	(7,998)	(92,267)	(21,191)	246,173	246,173
2012	56	11.31	1.03000	356,531	22,127	(8,238)	(95,035)	(21,826)	253,558	253,558
2013	57	12.31	1.03000	367,227	22,791	(8,485)	(97,886)	(22,481)	261,165	261,165
2014	58	13.31	1.03000	378,243	23,474	(8,740)	(100,823)	(23,156)	268,999	268,999
2015	59	14.31	1.03000	389,591	24,179	(9,002)	(103,848)	(23,850)	277,069	277,069
2016	60	15.31	1.03000	401,278	24,904	(9,272)	(106,963)	(24,566)	285,382	285,382
2017	61	16.31	1.03000	413,317	25,651	(9,550)	(110,172)	(25,303)	293,943	293,943
2018	62	17.31	1.03000	425,716	26,421	(9,837)	(113,477)	(26,062)	302,761	302,761
2019	63	18.31	1.03000	438,488	27,213	(10,132)	(116,882)	(26,844)	311,844	311,844
2020	64	18.47	1.03000	75,273	4,672	(1,739)	(20,064)	(4,608)	53,533	53,277
Total				\$6,270,476	\$393,773	(\$143,446)	(\$1,671,978)	(\$383,995)	\$4,464,830	\$4,464,574

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Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	27.480%	8.703%	3.710%	0.170%

# EXHIBIT 3A. PRESENT VALUE OF LOST PENSION BENEFITS MR. PAUL J. FRIEDMAN SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PENSION CONTRIB.	401 (K)	TAXES	CONSUMPTION	NET LOSS	PV of NET Loss
2001	45	0.31	\$2,453	\$113	(\$31)	(\$306)	\$2,229	\$2,229
2002	46	1.31	8,240	378	(104)	(1,027)	7,487	7,487
2003	47	2.31	8,610	407	(112)	(1,075)	7,831	7,831
2004	48	3.31	10,014	473	(130)	(1,250)	9,108	9,108
2005	49	4.31	10,374	490	(135)	(1,295)	9,435	9,435
2006	50	5.31	10,726	507	(139)	(1,339)	9,755	9,755
2007	51	6.31	11,068	523	(144)	(1,381)	10,066	10,066
2008	52	7.31	11,400	539	(148)	(1,423)	10,368	10,368
2009	53	8.31	11,742	555	(153)	(2,163)	9,982	9,982
2010	54	9.31	12,094	572	(157)	(2,228)	10,281	10,281
2011	55	10.31	12,457	589	(162)	(2,295)	10,589	10,589
2012	56	11.31	12,831	607	(167)	(2,364)	10,907	10,907
2013	57	12.31	13,216	625	(172)	(2,435)	11,234	11,234
2014	58	13.31	13,612	644	(177)	(2,508)	11,571	11,571
2015	59	14.31	14,021	663	(182)	(2,583)	11,918	11,918
2016	60	15.31	14,441	683	(188)	(2,661)	12,276	12,276
2017	61	16.31	14,875	703	(193)	(2,740)	12,644	12,644
2018	62	17.31	15,321	724	(199)	(2,823)	13,024	13,024
2019	63	18.31	15,780	746	(205)	(2,907)	13,414	13,414
2020	64	18.47	2,709	128	(35)	(499)	2,303	2,292
Total		_	\$225,985	\$10,670	(\$2,932)	(\$37,301)	\$196,422	\$196,411

**EXHIBIT 4a.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES MR. PAUL J. FRIEDMAN

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	PSYCHOTHERAPY FOR SON	TOTAL SERVICES	PRESENT VALUE
2001	45	0.31	\$2,224	\$14,142	\$2,615	\$18,981	\$18,981
2002	46	1.31	7,253	46,119	8,527	61,899	61,899
2003	47	2.31	7,253	46,119	8,527	61,899	61,899
2004	48	3.31	7,253	46,119	8,527	61,899	61,899
2005	49	4.31	7,253	46,119	8,527	61,899	61,899
2006	50	5.31	8,379	22,712	8,527	39,618	39,618
2007	51	6.31	8,448	21,283	8,527	38,258	38,258
2008	52	7.31	8,448	21,283	8,527	38,258	38,258
2009	53	8.31	8,448	21,283	8,527	38,258	38,258
2010	54	9.31	8,448	21,283	8,527	38,258	38,258
2011	55	10.31	8,448	21,283	5,912	35,643	35,643
2012	56	11.31	8,448	21,283	0	29,731	29,731
2013	57	12.31	8,448	21,283	0	29,731	29,731
2014	58	13.31	9,559	4,202	0	13,761	13,761
2015	59	14.31	9,627	3,160	0	12,786	12,786
2016	60	15.31	9,627	3,160	0	12,786	12,786
2017	61	16.31	9,627	3,160	0	12,786	12,786
2018	62	17.31	9,627	3,160	0	12,786	12,786
2019	63	18.31	9,627	3,160	0	12,786	12,786
2020	64	19.31	9,562	4,153	0	13,715	13,434
2021	65	20.31	13,556	1,916	0	15,471	14,586
2022	66	21.31	13,556	1,916	0	15,471	14,039
2023	67	22.31	13,556	1,916	0	15,471	13,512
2024	68	23.31	13,556	1,916	0	15,471	13,004
2025	69	24.31	13,556	1,916	0	15,471	12,516
2026	70	25.31	13,556	1,916	0	15,471	12,047
2027	71	26.31	13,556	1,916	0	15,471	11,594
2028	72	27.31	13,556	1,916	0	15,471	11,159
2029	73	28.31	13,556	1,916	0	15,471	10,740
2030	74	29.31	13,556	1,916	0	15,471	10,337
2031	75	30.31	13,556	1,916	0	15,471	9,949
2032	76	31.31	13,556	1,916	0	15,471	9,576
2033	77	32.31	13,556	1,916	0	15,471	9,216
2034	78	33.31	13,556	1,916	0	15,471	8,870
2035	79	34.31	13,556	1,916	0	15,471	8,537
2036	80	35.31	13,556	1,916	0	15,471	8,217
2037	81	36.31	13,556	1,916	0	15,471	7,908
2038	82	37.31	13,556	1,916	0	15,471	7,612
2039	83	38.31	13,556	1,916	0	15,471	7,326
2040	84	38.49	2,486	351	0	2,837	1,313
Total			\$426,049	\$431,215	\$85,270	\$942,534	\$847,520

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Salvatore Calabro** 

December 24, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **March 4, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Beauzile

Valuation Date	01-Jan-20
Discount Rate	3.9%

## **Exhibit 1.** Summary of Economic Damages **Mr. Salvatore Calabro**

	Present Value
Present Value of Lost Earnings	\$3,067,665
Present Value of Retirement Benefits	731,974
Present Value of Lost Replacement Services	0
Total	\$3,799,639

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
76,262	3.0%	16.670%	7,488	6.68-12.49%

#### Exhibit 2a. Present Value of Lost Earnings Mr. Salvatore Calabro Special Master Worklife

Year	Age	Time Frame	Age-Specific Growth Factor	Earnings	Benefits	Unempl. Adj.	Taxes	Consumption	Net Earnings	PV of Net Earnings
2001	39	0.31	1.00000	\$23,385	\$2,326	\$0	(\$3,898)	(\$1,301)	\$20,511	\$20,511
2002	40	1.31	1.18033	90,014	7,890	(2,448)	(14,555)	(4,859)	76,043	76,043
2003	41	2.31	1.05179	94,676	9,296	(2,599)	(15,309)	(5,111)	80,952	80,952
2004	42	3.31	1.04979	99,390	9,758	(2,729)	(16,071)	(5,366)	84,983	84,983
2005	43	4.31	1.04779	104,139	10,225	(2,859)	(16,839)	(5,622)	89,044	89,044
2006	44	5.31	1.04579	108,908	10,693	(2,990)	(17,610)	(5,879)	93,121	93,121
2007	45	6.31	1.04380	113,679	11,161	(3,121)	(18,382)	(6,137)	97,201	97,201
2008	46	7.31	1.04182	118,433	11,628	(3,251)	(19,150)	(6,394)	101,265	101,265
2009	47	8.31	1.03984	123,150	12,091	(3,381)	(19,913)	(6,648)	105,299	105,299
2010	48	9.31	1.03786	127,812	12,549	(3,509)	(20,667)	(6,900)	109,285	109,285
2011	49	10.31	1.03588	132,398	12,999	(3,635)	(21,409)	(7,148)	113,207	113,207
2012	50	11.31	1.03391	136,888	13,440	(3,758)	(22,135)	(7,390)	117,046	117,046
2013	51	12.31	1.03194	141,261	13,870	(3,878)	(22,842)	(7,626)	120,784	120,784
2014	52	13.31	1.03000	145,499	14,286	(3,994)	(23,527)	(7,855)	124,408	124,408
2015	53	14.31	1.03000	149,863	14,714	(4,114)	(24,233)	(8,090)	128,140	128,140
2016	54	15.31	1.03000	154,359	15,156	(4,238)	(24,960)	(8,333)	131,984	131,984
2017	55	16.31	1.03000	158,990	15,610	(4,365)	(25,709)	(11,184)	133,343	133,343
2018	56	17.31	1.03000	163,760	16,079	(4,496)	(26,480)	(11,520)	137,343	137,343
2019	57	18.31	1.03000	168,673	16,561	(4,631)	(27,274)	(17,024)	136,305	136,305
2020	58	19.31	1.03000	173,733	17,058	(4,770)	(28,092)	(17,535)	140,394	137,523
2021	59	20.31	1.03000	178,945	17,569	(4,913)	(28,935)	(18,061)	144,606	136,332
2022	60	21.31	1.03000	184,313	18,097	(5,060)	(29,803)	(18,602)	148,944	135,151
2023	61	22.31	1.03000	189,843	18,639	(5,212)	(30,697)	(19,160)	153,412	133,980
2024	62	23.31	1.03000	195,538	19,199	(5,368)	(31,618)	(19,735)	158,015	132,819
2025	63	24.31	1.03000	201,404	19,775	(5,529)	(32,567)	(20,327)	162,755	131,669
2026	64	25.31	1.03000	207,446	20,368	(5,695)	(33,544)	(20,937)	167,638	130,528
2027	65	26.31	1.03000	213,669	20,979	(5,866)	(34,550)	(21,565)	172,667	129,397
Total			_	\$3,900,168	\$382,016	(\$106,408)	(\$630,770)	(\$296,310)	\$3,248,696	\$3,067,665

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	16.670%	6.68-12.49%	4.000%	0.000%

Exhibit 3a. Present Value of Lost Pension Benefits
Mr. Salvatore Calabro
Special Master Worklife

Year	Age	Time Frame	Pension Contrib.	Net Pension (Projected-Vested)	Taxes	Consumption	Net Loss	PV of Net Loss
2001	39	0.31	(\$635)	\$0			(\$593)	(\$593)
2002	40	1.31	(2,070)	0	0 0		(1,932)	(1,932)
2003	41	2.31	(2,178)	0	0	145	(2,033)	(2,033)
2004	42	3.31	(2,286)	0	0	153	(2,133)	(2,133)
2005	43	4.31	(2,395)	0	0	160	(2,235)	(2,235)
2006	44	5.31	(2,504)	0	0	167	(2,337)	(2,337)
2007	45	6.31	(1,962)	(7,763)	1,294	563	(7,868)	(7,868)
2008	46	7.31	0	(31,052)	5,176	1,728	(24,147)	(24,147)
2009	47	8.31	0	(31,052)	5,176	1,728	(24,147)	(24,147)
2010	48	9.31	0	(31,052)	5,176	1,728	(24,147)	(24,147)
2011	49	10.31	0	(31,052)	5,176	1,728	(24,147)	(24,147)
2012	50	11.31	5,475	(11,423)	1,904	270	(3,774)	(3,774)
2013	51	12.31	5,759	47,465	(7,912)	(3,026)	42,285	42,285
2014	52	13.31	6,046	47,465	(7,912)	(3,045)	42,553	42,553
2015	53	14.31	6,335	47,465	(7,912)	(3,065)	42,823	42,823
2016	54	15.31	6,625	47,465	(7,912)	(3,084)	43,093	43,093
2017	55	16.31	6,915	47,465	(7,912)	(4,044)	42,424	42,424
2018	56	17.31	7,204	47,285	(7,882)	(4,056)	42,551	42,551
2019	57	18.31	7,491	47,105	(7,852)	(5,837)	40,907	40,907
2020	58	19.31	7,775	46,925	(7,822)	(5,853)	41,024	40,185
2021	59	20.31	8,054	46,745	(7,792)	(5,869)	41,137	38,783
2022	60	21.31	8,327	46,745	(7,792)	(5,904)	41,376	37,544
2023	61	22.31	8,593	46,745	(7,792)	(5,937)	41,609	36,338
2024	62	23.31	8,851	46,745	(7,792)	(5,969)	41,835	35,164
2025	63	24.31	9,116	46,745	(7,792)	(6,002)	42,067	34,032
2026	64	25.31	9,389	46,745	(7,792)	(6,036)	42,305	32,940
2027	65	26.31	9,671	46,745	(7,792)	(6,071)	42,552	31,889
2028	66	27.31		46,745	(7,792)	(4,864)	34,089	24,587
2029	67	28.31		46,745	(7,792)	(4,864)	34,089	23,665
2030	68	29.31		46,745	(7,792)	(4,864)	34,089	22,776
2031	69	30.31		46,745	(7,792)	(4,864)	34,089	21,921
2032	70	31.31		46,745	(7,792)	(4,864)	34,089	21,098
2033	71	32.31		46,745	(7,792)	(4,864)	34,089	20,307
2034	72	33.31		46,745	(7,792)	(4,864)	34,089	19,544
2035	73	34.31		46,745	(7,792)	(4,864)	34,089	18,811
2036	74	35.31		46,745	(7,792)	(4,864)	34,089	18,105
2037	75	36.31		46,745	(7,792)	(4,864)	34,089	17,425
2038	76	37.31		46,745	(7,792)	(4,864)	34,089	16,771
2039	77	38.31		46,745	(7,792)	(4,864)	34,089	16,141
2040	78	39.31		46,745	(7,792)	(4,864)	34,089	15,536
2041	79	40.06		35,059	(5,844)	(3,648)	25,567	11,268
Total			\$107,596	\$1,205,205	(\$200,908)	(\$132,124)	\$979,769	\$731,974

**Exhibit 4a.** Loss Estimated Value of Replacement Services **Mr. Salvatore Calabro** 

Year	Age	Time Frame	Household Services	Care Services	Total Services	Present Value
2001	39	0.31			\$0	\$0
2002	40	1.31			0	0
2003	41	2.31			0	0
2004	42	3.31			0	0
2005	43	4.31			0	0
2006	44	5.31			0	0
2007	45	6.31			0	0
2008	46	7.31			0	0
2009	47	8.31			0	0
2010	48	9.31			0	0
2011	49	10.31			0	0
2012	50	11.31			0	0
2013	51	12.31			0	0
2014	52	13.31			0	0
2015	53	14.31			0	0
2016	54	15.31			0	0
2017	55	16.31			0	0
2018	56	17.31			0	0
Total			\$0	\$0	\$0	\$0

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Thomas Swift** 

January 2, 2020

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **June 4, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

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The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
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- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

olm E. Be, uzil

VALUATION DATE	01-Jan-20
DISCOUNT RATE	4.2%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES Mr. THOMAS SWIFT

	PRESENT VALUE
Present Value of Lost Earnings	\$3,956,012
Present Value of Retirement Benefits	515,319
Present Value of Lost Replacement Services	894,794
Total	\$5,366,125

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
97,228	3.0%	20.550%	2,456	12.486%

## **EXHIBIT 2a.** PRESENT VALUE OF LOST EARNINGS **MR. THOMAS SWIFT**

SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	Earnings	BENEFITS	UNEMPL. Adj.	Taxes	CONSUMPTION	NET EARNINGS	PV OF NET EARNINGS
2001	31	0.31	1.00000	\$29,814	\$753	\$0	(\$6,127)	(\$2,958)	\$21,483	\$21,483
2002	32	1.31	1.06997	104,031	2,627	(2,542)	(20,737)	(10,011)	73,369	73,369
2003	33	2.31	1.06794	111,099	2,806	(2,715)	(22,146)	(10,691)	78,353	78,353
2004	34	3.31	1.06591	118,421	2,991	(2,894)	(23,605)	(11,396)	83,517	83,517
2005	35	4.31	1.06388	125,985	3,182	(3,079)	(25,113)	(12,123)	88,852	88,852
2006	36	5.31	1.06185	133,778	3,379	(3,269)	(26,667)	(12,873)	94,348	94,348
2007	37	6.31	1.05983	141,782	3,581	(3,465)	(28,262)	(13,644)	99,993	99,993
2008	38	7.31	1.05781	149,979	3,788	(3,665)	(29,896)	(14,432)	105,774	105,774
2009	39	8.31	1.05580	158,348	3,999	(3,870)	(31,564)	(15,238)	111,676	111,676
2010	40	9.31	1.05379	166,866	4,214	(4,078)	(33,262)	(16,057)	117,683	117,683
2011	41	10.31	1.05179	175,508	4,433	(4,289)	(34,985)	(16,889)	123,778	123,778
2012	42	11.31	1.04979	184,245	4,653	(4,502)	(36,727)	(17,730)	129,940	129,940
2013	43	12.31	1.04779	193,050	4,876	(4,718)	(38,482)	(18,577)	136,150	136,150
2014	44	13.31	1.04579	201,891	5,099	(4,934)	(40,244)	(19,428)	142,385	142,385
2015	45	14.31	1.04380	210,734	5,322	(5,150)	(42,007)	(20,279)	148,622	148,622
2016	46	15.31	1.04182	219,547	5,545	(5,365)	(43,763)	(21,127)	154,837	154,837
2017	47	16.31	1.03984	228,293	5,766	(5,579)	(45,507)	(21,968)	161,005	161,005
2018	48	17.31	1.03786	236,935	5,984	(5,790)	(47,229)	(22,800)	167,100	167,100
2019	49	18.31	1.03588	245,436	6,199	(5,998)	(48,924)	(23,618)	173,095	173,095
2020	50	19.31	1.03391	253,759	6,409	(6,201)	(50,583)	(24,419)	178,965	175,033
2021	51	20.31	1.03194	261,865	6,614	(6,399)	(52,199)	(25,199)	184,682	173,344
2022	52	21.31	1.03000	269,721	6,812	(6,591)	(53,765)	(25,955)	190,222	171,348
2023	53	22.31	1.03000	277,813	7,017	(6,789)	(55,378)	(26,734)	195,929	169,374
2024	54	23.31	1.03000	286,147	7,227	(6,993)	(57,039)	(27,536)	201,807	167,424
2025	55	24.31	1.03000	294,731	7,444	(7,202)	(58,750)	(28,362)	207,861	165,496
2026	56	25.31	1.03000	303,573	7,667	(7,418)	(60,513)	(29,213)	214,097	163,590
2027	57	26.31	1.03000	312,681	7,897	(7,641)	(62,328)	(30,089)	220,520	161,706
2028	58	27.31	1.03000	322,061	8,134	(7,870)	(64,198)	(30,992)	227,135	159,844
2029	59	28.31	1.03000	331,723	8,378	(8,106)	(66,124)	(31,921)	233,949	158,003
2030	60	28.81	1.03000	170,839	4,315	(4,175)	(34,054)	(16,440)	120,485	78,895
Total				\$6,220,656	\$157,113	(\$151,286)	(\$1,240,178)	(\$598,696)	\$4,387,609	\$3,956,012

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	20.550%	12.486%	0.000%	4.767%

## **EXHIBIT 3A.** PRESENT VALUE OF LOST PENSION BENEFITS **MR. THOMAS SWIFT**SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	NET PENSION (PROJECTED-VESTED)	401(K)	Taxes	CONSUMPTION	NET LOSS	PV of NET Loss
2001	31	0.31	\$0	\$1,421	\$0	(\$77)	\$1,344	\$1,344
2002	32	1.31	0	4,810	0	(261)	4,550	4,550
2003	33	2.31	0	5,137	0	(278)	4,859	4,859
2004	34	3.31	0	5,476	0	(297)	5,179	5,179
2005	35	4.31	0	5,826	0	(316)	5,510	5,510
2006	36	5.31	0	6,186	0	(335)	5,851	5,851
2007	37	6.31	0	6,556	0	(355)	6,201	6,201
2008	38	7.31	0	6,935	0	(376)	6,559	6,559
2009	39	8.31	0	7,322	0	(397)	6,925	6,925
2010	40	9.31	0	7,716	0	(418)	7,298	7,298
2011	41	10.31	0	8,115	0	(542)	7,573	7,573
2012	42	11.31	0	8,520	0	(569)	7,951	7,951
2013	43	12.31	0	8,927	0	(777)	8,150	8,150
2014	44	13.31	0	9,335	0	(812)	8,523	8,523
2015	45	14.31	0	9,744	0	(848)	8,896	8,896
2016	46	15.31	0	10,152	0	(1,268)	8,884	8,884
2017	47	16.31	0	10,556	0	(1,318)	9,238	9,238
2018	48	17.31	0	10,956	0	(1,368)	9,588	9,588
2019	49	18.31	0	11,349	0	(1,417)	9,932	9,932
2020	50	19.31	0	11,734	0	(1,465)	10,269	10,043
2021	51	20.31	0	12,109	0	(1,512)	10,597	9,946
2022	52	21.31	0	12,472	0	(1,557)	10,915	9,832
2023	53	22.31	0	12,846	0	(1,604)	11,242	9,718
2024	54	23.31	0	13,231	0	(1,652)	11,579	9,606
2025	55	24.31	0	13,628	0	(1,702)	11,927	9,496
2026	56	25.31	0	14,037	0	(1,753)	12,285	9,386
2027	57	26.31	0	14,458	0	(1,805)	12,653	9,278
2028	58	27.31	0	14,892	0	(1,860)	13,033	9,172
2029	59	28.31	0	15,339	0	(1,915)	13,424	9,066
2030	60	29.31	0	7,900	0	(986)	6,913	4,481
2031	61	30.31	0	0	0	0	0	0
2032	62	31.31	0	0	0	0	0	0
2033	63	32.31	0	0	0	0	0	0
2034	64	33.31	0	0	0	0	0	0
2035	65	34.31	0	0	0	0	0	0
2036	66	35.31	76,902	0	(15,803)	(7,629)	53,470	27,075
2037	67	36.31	76,902	0	(15,803)	(7,629)	53,470	25,984
2038	68	37.31	76,902	0	(15,803)	(7,629)	53,470	24,937
2039	69	38.31	76,902	0	(15,803)	(7,629)	53,470	23,932
2040	70	39.31	76,902	0	(15,803)	(7,629)	53,470	22,967
2041	71	40.31	76,902	0	(15,803)	(7,629)	53,470	22,041
2042	72	41.31	76,902 76,902	0	(15,803)	(7,629)	53,470	21,153
2042	72	42.31	76,902 76,902	0	(15,803)	(7,629)	53,470	20,300
2043	73 74	43.31	76,902 76,902	0	(15,803)	(7,629)	53,470	19,482
2044	7 <del>4</del> 75	44.31	76,902 76,902	0	(15,803)	(7,629)	53,470	18,697
2045	75 76	45.31	76,902 76,902	0	(15,803)	(7,629)	53,470	17,943
2040	70 77	46.31	76,902 76,902	0	(15,803)	(7,629) (7,629)	53,470 53,470	17,220
2047	77 78	47.31	76,902 76,902	0			53,470 53,470	16,526
2048	78 79	47.56	76,902 19,225	0	(15,803) (3,951)	(7,629) (1,907)	13,367	4,026
	13	47.30						
Total			\$1,018,951	\$287,687	(\$209,394)	(\$130,925)	\$966,318	\$515,319

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES MR. THOMAS SWIFT

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	OTHER CARE SERVICES	HOME CARE AID	TOTAL SERVICES	PRESENT VALUE
2001	31	0.31	\$2,256	\$431	\$1,350	\$4,037	\$4,037
2002	32	1.31	7,577	1,446	4,536	13,559	13,559
2003	33	2.31	7,804	1,490	4,672	13,966	13,966
2004	34	3.31	8,038	1,534	4,812	14,385	14,385
2005	35	4.31	8,279	1,580	4,957	14,816	14,816
2006	36	5.31	8,528	1,628	5,105	15,261	15,261
2007	37	6.31	8,783	1,676	5,259	15,719	15,719
2008	38	7.31	9,047	1,727	5,416	16,190	16,190
2009	39	8.31	9,318	1,779	5,579	16,676	16,676
2010	40	9.31	9,598	1,832	5,746	17,176	17,176
2011	41	10.31	9,886	1,887	5,919	17,691	17,691
2012	42	11.31	10,182	1,943	6,096	18,222	18,222
2013	43	12.31	10,488	2,002	6,279	18,769	18,769
2014	44	13.31	10,803	2,062	6,467	19,332	19,332
2015	45	14.31	11,127	2,124	6,661	19,912	19,912
2016	46	15.31	11,460	2,187	6,861	20,509	20,509
2017	47	16.31	11,804	2,253	7,067	21,124	21,124
2018	48	17.31	12,158	2,321	7,279	21,758	21,758
2019	49	18.31	12,523	2,390	7,498	22,411	22,411
2020	50	19.31	12,899	2,462	, 7,722	23,083	22,576
2021	51	20.31	13,286	2,536	7,954	23,776	22,316
2022	52	21.31	13,684	2,612	8,193	24,489	22,059
2023	53	22.31	14,095	2,690	8,439	25,224	21,805
2024	54	23.31	14,518	2,771	8,692	25,980	21,554
2025	55	24.31	14,953	2,854	8,952	26,760	21,306
2026	56	25.31	15,402	2,940	9,221	27,562	21,060
2027	57	26.31	15,864	3,028	9,498	28,389	20,818
2028	58	27.31	16,340	3,119	9,783	29,241	20,578
2029	59	28.31	16,830	3,212	10,076	30,118	20,341
2030	60	29.31	17,335	3,309	10,378	31,022	20,107
2031	61	30.31	17,855	3,408	10,690	31,952	19,875
2032	62	31.31	18,391	3,510	11,010	32,911	19,646
2033	63	32.31	18,942	3,615	11,341	33,898	19,420
2034	64	33.31	19,511	3,724	11,681	34,915	19,196
2035	65	34.31	20,096	3,836	12,031	35,963	18,975
2036	66	35.31	20,699	3,951	12,392	37,042	18,757
2037	67	36.31	21,320	4,069	12,764	38,153	18,541
2038	68	37.31	21,959	4,191	13,147	39,298	18,327
2039	69	38.31	22,618	4,317	13,541	40,476	18,116
2040	70	39.31	23,297	4,447	13,948	41,691	17,908
2041	71	40.31	23,996	4,580	14,366	42,941	17,701
2041	72	41.31	24,715	4,717	14,797	44,230	17,701
2042	73	42.31	25,457	4,859	15,241	45,557	17,438
2043	73 74	43.31	26,221	5,005	15,698	46,923	17,290
2044	7 <del>4</del> 75	44.31	27,007	5,003 5,155	16,169	48,331	16,900
2045	75 76	45.31	27,007 27,817	5,309	16,654	49,781	16,705
2040	70 77	46.31	28,652	5,469	17,154	51,274	16,703
2047	77 78	40.31	29,511	5,633	17,134 17,668	52,813	16,313
2048	78 79	48.17	26,243	5,009	15,712	46,964	13,969
Total	,,	10.17	\$789,171	\$150,625	\$472,473	\$1,412,269	\$894,794
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28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Paul Cascio** 

December 26, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **May 5, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

lehn E. Be. uz

VALUATION DATE	01-Jan-20
DISCOUNT RATE	4.2%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES MR. PAUL CASCIO

	PRESENT VALUE
Present Value of Lost Earnings	\$2,963,439
Present Value of Retirement Benefits	129,497
Present Value of Lost Replacement Services	150,871_
Total	\$3,243,808

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
78,127	3.0%	18.440%	3,124	11.76-60.81%

## **EXHIBIT 2A.** PRESENT VALUE OF LOST EARNINGS MR. PAUL CASCIO

SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	EARNINGS	BENEFITS	UNEMPL. ADJ.	Taxes	CONSUMPTION	NET EARNINGS	PV OF NET EARNINGS
2001	24	0.31	1.00000	\$23,957	\$958	\$0	(\$4,418)	(\$2,298)	\$18,199	\$18,199
2002	25	1.31	1.08434	84,716	3,388	(2,156)	(15,153)	(7,882)	62,913	62,913
2003	26	2.31	1.08227	91,686	3,666	(2,333)	(16,400)	(8,531)	68,089	68,089
2004	27	3.31	1.08021	99,040	3,960	(2,520)	(17,715)	(9,215)	73,551	73,551
2005	28	4.31	1.07816	106,781	4,270	(2,717)	(19,100)	(9,935)	79,299	79,299
2006	29	5.31	1.07611	114,908	4,595	(2,924)	(20,553)	(10,691)	85,334	85,334
2007	30	6.31	1.07406	123,418	4,935	(3,141)	(22,075)	(11,483)	91,654	91,654
2008	31	7.31	1.07201	132,305	5,291	(3,367)	(23,665)	(12,310)	98,254	98,254
2009	32	8.31	1.06997	141,563	5,661	(3,602)	(25,321)	(13,171)	105,129	105,129
2010	33	9.31	1.06794	151,181	6,045	(3,847)	(27,041)	(14,066)	112,272	112,272
2011	34	10.31	1.06591	161,144	6,444	(4,101)	(28,824)	(14,993)	119,671	119,671
2012	35	11.31	1.06388	171,437	6,855	(4,362)	(30,665)	(82,483)	60,783	60,783
2013	36	12.31	1.06185	182,041	7,280	(4,632)	(32,561)	(87,584)	64,543	64,543
2014	37	13.31	1.05983	192,933	7,715	(4,909)	(34,510)	(92,825)	68,404	68,404
2015	38	14.31	1.05781	204,087	8,161	(5,193)	(36,505)	(98,191)	72,359	72,359
2016	39	15.31	1.05580	215,476	8,617	(5,483)	(38,542)	(103,671)	76,397	76,397
2017	40	16.31	1.05379	227,067	9,080	(5,778)	(40,615)	(109,247)	80,507	80,507
2018	41	17.31	1.05179	238,826	9,550	(6,077)	(42,718)	(114,905)	84,676	84,676
2019	42	18.31	1.04979	250,716	10,026	(6,380)	(44,845)	(120,626)	88,891	88,891
2020	43	19.31	1.04779	262,697	10,505	(6,685)	(46,988)	(126,390)	93,139	91,093
2021	44	20.31	1.04579	274,728	10,986	(6,991)	(49,140)	(132,178)	97,405	91,425
2022	45	21.31	1.04380	286,762	11,467	(7,297)	(51,292)	(137,968)	101,671	91,583
2023	46	22.31	1.04182	298,753	11,947	(7,602)	(53,437)	(143,737)	105,923	91,567
2024	47	23.31	1.03984	310,654	12,423	(7,905)	(55,566)	(149,463)	110,142	91,377
2025	48	24.31	1.03786	322,415	12,893	(8,204)	(57,670)	(155,121)	114,312	91,013
2026	49	25.31	1.03588	333,983	13,355	(8,499)	(59,739)	(160,687)	118,414	90,479
2027	50	26.31	1.03391	345,309	13,808	(8,787)	(61,765)	(166,136)	122,429	89,777
2028	51	27.31	1.03194	356,339	14,249	(9,068)	(63,738)	(171,443)	126,340	88,910
2029	52	28.31	1.03000	367,029	14,677	(9,340)	(65,650)	(176,587)	130,130	87,886
2030	53	29.31	1.03000	378,040	15,117	(9,620)	(67,619)	(181,884)	134,034	86,874
2031	54	30.31	1.03000	389,381	15,571	(9,908)	(69,648)	(187,341)	138,055	85,874
2032	55	31.31	1.03000	401,063	16,038	(10,206)	(71,737)	(192,961)	142,197	84,885
2033	56	32.31	1.03000	413,094	16,519	(10,512)	(73,889)	(198,750)	146,463	83,907
2034	57	33.31	1.03000	425,487	17,015	(10,827)	(76,106)	(204,712)	150,856	82,941
2035	58	34.31	1.03000	438,252	17,525	(11,152)	(78,389)	(210,854)	155,382	81,986
2036	59	34.81	1.03000	225,702	9,025	(5,743)	(40,371)	(108,590)	80,022	40,938
Total				\$8,742,972	\$349,617	(\$221,868)	(\$1,563,970)	(\$3,728,910)	\$3,577,841	\$2,963,439

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	18.440%	11.76-60.81%	4.000%	0.698%

## EXHIBIT 3A. PRESENT VALUE OF LOST PENSION BENEFITS MR. PAUL CASCIO SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PENSION CONTRIB.	401(k)	Taxes	CONSUMPTION	NET LOSS	PV of NET Loss
2001	24	0.31	\$958	\$167	(\$177)	(\$112)	\$837	\$837
2002	25	1.31	3,389	591	(625)	(395)	2,960	2,960
2003	26	2.31	3,557	640	(656)	(416)	3,125	3,125
2004	27	3.31	3,843	691	(709)	(450)	3,375	3,375
2005	28	4.31	4,143	745	(764)	(485)	3,639	3,639
2006	29	5.31	4,458	802	(822)	(522)	3,916	3,916
2007	30	6.31	4,789	861	(883)	(561)	4,206	4,206
2008	31	7.31	5,133	923	(947)	(601)	4,509	4,509
2009	32	8.31	5,493	987	(1,013)	(643)	4,824	4,824
2010	33	9.31	5,866	1,055	(1,082)	(687)	5,152	5,152
2011	34	10.31	6,252	1,124	(1,153)	(732)	5,492	5,492
2012	35	11.31	6,652	1,196	(1,227)	(4,027)	2,594	2,594
2013	36	12.31	7,063	1,270	(1,302)	(4,276)	2,755	2,755
2014	37	13.31	7,486	1,346	(1,380)	(4,531)	2,920	2,920
2015	38	14.31	7,919	1,424	(1,460)	(4,793)	3,089	3,089
2016	39	15.31	8,360	1,503	(1,542)	(5,061)	3,261	3,261
2017	40	16.31	8,810	1,584	(1,625)	(5,333)	3,436	3,436
2018	41	17.31	9,266	1,666	(1,709)	(5,609)	3,614	3,614
2019	42	18.31	9,728	1,749	(1,794)	(5,889)	3,794	3,794
2020	43	19.31	10,193	1,832	(1,880)	(6,170)	3,976	3,888
2021	44	20.31	10,659	1,916	(1,966)	(6,453)	4,158	3,902
2022	45	21.31	11,126	2,000	(2,052)	(6,735)	4,340	3,909
2023	46	22.31	11,592	2,084	(2,137)	(7,017)	4,521	3,908
2024	47	23.31	12,053	2,167	(2,223)	(7,296)	4,701	3,900
2025	48	24.31	12,510	2,249	(2,307)	(7,573)	4,879	3,885
2026	49	25.31	12,959	2,330	(2,390)	(7,844)	5,054	3,862
2027	50	26.31	13,398	2,409	(2,471)	(8,110)	5,226	3,832
2028	51	27.31	13,826	2,486	(2,550)	(8,369)	5,393	3,795
2029	52	28.31	14,241	2,560	(2,626)	(8,620)	5,554	3,751
2030	53	29.31	14,668	2,637	(2,705)	(8,879)	5,721	3,708
2031	54	30.31	15,108	2,716	(2,786)	(9,145)	5,893	3,665
2032	55	31.31	15,561	2,798	(2,869)	(9,420)	6,070	3,623
2033	56	32.31	16,028	2,882	(2,956)	(9,702)	6,252	3,581
2034	57	33.31	16,509	2,968	(3,044)	(9,993)	6,439	3,540
2035	58	34.31	17,004	3,057	(3,136)	(10,293)	6,632	3,499
2036	59	34.81	8,757	1,574	(1,615)	(5,301)	3,416	1,747
Total			\$339,358	\$60,986	(\$62,578)	(\$182,043)	\$155,723	\$129,497

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES MR. PAUL CASCIO

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	TOTAL SERVICES	PRESENT VALUE
2001	24	0.31	\$1,251	\$431	\$1,682	\$1,682
2002	25	1.31	4,080	1,404	5,484	5,484
2003	26	2.31	4,080	1,404	5,484	5,484
2004	27	3.31	4,080	1,404	5,484	5,484
2005	28	4.31	4,080	1,404	5,484	5,484
2006	29	5.31	4,080	1,404	5,484	5,484
2007	30	6.31	4,080	1,404	5,484	5,484
2008	31	7.31	4,080	1,404	5,484	5,484
2009	32	8.31	4,080	1,404	5,484	5,484
2010	33	9.31	4,080	1,404	5,484	5,484
2011	34	10.31	4,080	1,404	5,484	5,484
2012	35	11.31	4,080	1,404	5,484	5,484
2013	36	12.31	4,080	1,404	5,484	5,484
2014	37	13.31	4,080	1,404	5,484	5,484
2015	38	14.31	4,080	1,404	5,484	5,484
2016	39	15.31	4,080	1,404	5,484	5,484
2017	40	16.31	4,080	1,404	5,484	5,484
2018	41	17.31	4,080	1,404	5,484	5,484
2019	42	18.31	4,080	1,404	5,484	5,484
2020	43	19.31	4,080	1,404	5,484	5,364
2021	44	20.31	4,080	1,404	5,484	5,147
2022	45	21.31	4,080	1,404	5,484	4,940
2023	46	22.31	4,080	1,404	5,484	4,741
2024	47	23.31	4,080	1,404	5,484	4,550
2025	48	24.31	4,080	1,404	5,484	4,366
2026	49	25.31	4,080	1,404	5,484	4,190
2027	50	26.31	4,080	1,404	5,484	4,021
2028	51	27.31	4,080	1,404	5,484	3,859
2029	52	28.31	4,080	1,404	5,484	3,704
2030	53	29.31	4,080	1,404	5,484	3,554
2031	54	29.90	2,421	833	3,254	2,041
Total			\$121,992	\$41,980	\$163,972	\$150,871

28 Penny Lane Binghamton, NY 13905

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#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of

The Estate of Mr. Peter G. Wallace

December 28, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **May 4, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

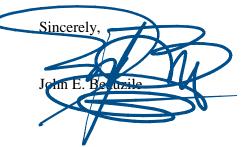
For replacement services, the amount that was awarded by **The Fund** was \$794,218 higher than that set forth in their Valuation Model. The amount computed by the model was \$347,580, whereas the amount that **The Fund** determined to be the appropriate value of lost services was \$1,141,798. In order to calculate the present value of lost replacement services, we converted the monthly values in **The Fund**'s valuation model to the annual amounts that could have produced the actual amount paid, assuming all else remained the same. This amount was set equal to the model's amount multiplied by 3.285 (or \$1,141,798 divided by \$347,580).

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits* 2s shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.



Valuation Date	01-Jan-20
Discount Rate	3.4%

## Exhibit 1. Summary of Economic Damages Mr. Peter G. Wallace

	Present Value
Present Value of Lost Earnings	\$589,538
Present Value of Retirement Benefits	92,981
Present Value of Lost Replacement Services	1,255,957
Total	\$1,938,476

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<b>Base Salary</b>	Unempl.	Tax Rate	Benefits	Pers. Consump.
83,727	3.0%	19.500%	5,250	14.472%

#### Exhibit 2a. Present Value of Lost Earnings Mr. Peter G. Wallace Special Master Worklife

Year	Age	Time Frame	Age-Specific Growth Factor	Earnings	Benefits	Unempl. Adj.	Taxes	Consumption	Net Earnings	PV of Net Earnings
2001	66	0.31	1.00000	\$25,674	\$1,610	\$0	(\$5,006)	(\$2,991)	\$19,287	\$19,287
2002	67	1.31	1.03000	86,239	5,408	(2,213)	(16,312)	(9,745)	63,376	63,376
2003	68	2.31	1.03000	88,826	5,570	(2,280)	(16,801)	(10,038)	65,277	65,277
2004	69	3.31	1.03000	91,491	5,737	(2,348)	(17,305)	(10,339)	67,236	67,236
2005	70	4.31	1.03000	94,235	5,909	(2,418)	(17,825)	(10,649)	69,253	69,253
2006	71	5.31	1.03000	97,062	6,087	(2,491)	(18,359)	(10,968)	71,330	71,330
2007	72	6.31	1.03000	99,974	6,269	(2,566)	(18,910)	(11,297)	73,470	73,470
2008	73	7.31	1.03000	102,973	6,457	(2,643)	(19,477)	(11,636)	75,674	75,674
2009	74	8.31	1.03000	106,063	6,651	(2,722)	(20,062)	(11,985)	77,944	77,944
2010	75	8.39	1.03000	9,104	571	(234)	(1,722)	(1,029)	6,690	6,690
Total				\$801,641	\$50,270	(\$19,915)	(\$151,781)	(\$90,678)	\$589,538	\$589,538

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Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	19.500%	14.472%	0.000%	4.746%

## Exhibit 3a. Present Value of Lost Pension Benefits Mr. Peter G. Wallace Special Master Worklife

Year	Age	Time Frame	Pension Contrib.	401(K)	Taxes	Consumption	Net Loss	PV of Net Loss
2001	66	0.31	(\$954)	\$1,218	(\$238)	(\$4)	\$23	\$23
2002	67	1.31	(3,816)	4,093	(798)	75	(446)	(446)
2003	68	2.31	(3,816)	4,215	(822)	61	(362)	(362)
2004	69	3.31	(3,816)	4,342	(847)	46	(274)	(274)
2005	70	4.31	(3,816)	4,472	(872)	31	(185)	(185)
2006	71	5.31	(3,816)	4,606	(898)	16	(92)	(92)
2007	72	6.31	(3,816)	4,744	(925)	(0)	3	3
2008	73	7.31	(3,816)	4,887	(953)	(17)	101	101
2009	74	8.31	(3,816)	5,033	(981)	(34)	202	202
2010	75	9.31	11,892	432	(84)	(1,771)	10,468	10,468
2011	76	10.31	13,320	0	0	(1,928)	11,392	11,392
2012	77	11.31	13,320	0	0	(1,928)	11,392	11,392
2013	78	12.31	13,320	0	0	(1,928)	11,392	11,392
2014	79	13.31	13,320	0	0	(1,928)	11,392	11,392
2015	80	14.31	13,320	0	0	(1,928)	11,392	11,392
2016	81	15.31	13,320	0	0	(1,928)	11,392	11,392
2017	82	16.31	13,320	0	0	(1,928)	11,392	11,392
2018	83	16.64	4,440	0	0	(643)	3,797	3,797
Total			\$78,090	\$38,043	(\$7,418)	(\$15,733)	\$92,981	\$92,981

**Exhibit 4a.** Loss Estimated Value of Replacement Services **Mr. Peter G. Wallace** 

Year	Age	Time Frame	Household Care Services		Total Services	Present Value
2001	66	0.31	\$10,432	\$15,714	\$26,146	\$26,146
2002	67	1.31	34,019	51,246	85,265	85,265
2003	68	2.31	34,019	51,246	85,265	85,265
2004	69	3.31	34,019	51,246	85,265	85,265
2005	70	4.31	34,019	51,246	85,265	85,265
2006	71	5.31	34,019	51,246	85,265	85,265
2007	72	6.31	34,019	51,246	85,265	85,265
2008	73	7.31	34,019	51,246	85,265	85,265
2009	74	8.31	34,019	51,246	85,265	85,265
2010	75	9.31	34,019	51,246	85,265	85,265
2011	76	10.31	34,019	51,246	85,265	85,265
2012	77	11.31	34,019	51,246	85,265	85,265
2013	78	12.31	34,019	51,246	85,265	85,265
2014	79	13.31	34,019	51,246	85,265	85,265
2015	80	14.31	34,019	51,246	85,265	85,265
2016	81	14.73	14,402	21,695	36,098	36,098
Total	·		\$501,105	\$754,852	\$1,255,957	\$1,255,957

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Ronald D. Milam** 

December 27, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **June 10, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
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- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

chn E. Betuz

VALUATION DATE	01-Jan-20
DISCOUNT RATE	4.2%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES MR. RONALD D. MILAM

	PRESENT VALUE
Present Value of Lost Earnings	\$3,221,771
Present Value of Retirement Benefits	1,428,652
Present Value of Lost Replacement Services	347,810
Total	\$4,998,233

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
84.699	3.0%	18.030%	2.452	7.55-14.47%

## **EXHIBIT 2A.** PRESENT VALUE OF LOST EARNINGS MR. RONALD D. MILAM

SPECIAL MASTER WORKLIFE

YEAR	Age	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	Earnings	Benefits	UNEMPL. ADJ.	Taxes	CONSUMPTION	NET EARNINGS	PV OF NET EARNINGS
2001	33	0.31	1.00000	\$25,660	\$752	\$0	(\$4,626)	(\$1,589)	\$20,197	\$20,197
2002	34	1.31	1.06591	90,281	2,614	(2,284)	(15,789)	(5,423)	69,399	69,399
2003	35	2.31	1.06388	96,048	2,781	(2,430)	(16,798)	(5,769)	73,832	73,832
2004	36	3.31	1.06185	101,989	2,953	(2,581)	(17,837)	(6,126)	78,399	78,399
2005	37	4.31	1.05983	108,091	3,130	(2,735)	(18,904)	(6,492)	83,089	83,089
2006	38	5.31	1.05781	114,340	3,311	(2,893)	(19,997)	(6,868)	87,893	87,893
2007	39	6.31	1.05580	120,721	3,495	(3,055)	(21,113)	(7,251)	92,798	92,798
2008	40	7.31	1.05379	127,215	3,683	(3,219)	(22,249)	(7,641)	97,789	97,789
2009	41	8.31	1.05179	133,803	3,874	(3,386)	(23,401)	(8,037)	102,854	102,854
2010	42	9.31	1.04979	140,464	4,067	(3,554)	(24,566)	(8,437)	107,974	107,974
2011	43	10.31	1.04779	147,177	4,261	(3,724)	(25,740)	(8,840)	113,134	113,134
2012	44	11.31	1.04579	153,916	4,457	(3,895)	(26,919)	(9,245)	118,315	118,315
2013	45	12.31	1.04380	160,659	4,652	(4,065)	(28,098)	(9,650)	123,498	123,498
2014	46	13.31	1.04182	167,377	4,846	(4,235)	(29,273)	(10,053)	128,662	128,662
2015	47	14.31	1.03984	174,045	5,039	(4,404)	(30,439)	(10,454)	133,787	133,787
2016	48	15.31	1.03786	180,633	5,230	(4,571)	(31,591)	(10,849)	138,852	138,852
2017	49	16.31	1.03588	187,115	5,418	(4,735)	(32,725)	(11,239)	143,834	143,834
2018	50	17.31	1.03391	193,460	5,601	(4,895)	(33,834)	(11,620)	148,712	148,712
2019	51	18.31	1.03194	199,639	5,780	(5,051)	(34,915)	(11,991)	153,462	153,462
2020	52	19.31	1.03000	205,629	5,954	(5,203)	(35,963)	(16,228)	154,189	150,801
2021	53	20.31	1.03000	211,797	6,132	(5,359)	(37,041)	(16,715)	158,814	149,064
2022	54	21.31	1.03000	218,151	6,316	(5,520)	(38,153)	(25,102)	155,693	140,244
2023	55	22.31	1.03000	224,696	6,506	(5,685)	(39,297)	(25,855)	160,364	138,629
2024	56	23.31	1.03000	231,437	6,701	(5,856)	(40,476)	(26,631)	165,175	137,033
2025	57	24.31	1.03000	238,380	6,902	(6,032)	(41,690)	(27,430)	170,130	135,455
2026	58	25.31	1.03000	245,531	7,109	(6,213)	(42,941)	(28,253)	175,234	133,895
2027	59	26.31	1.03000	252,897	7,322	(6,399)	(44,229)	(29,100)	180,491	132,353
2028	60	26.97	1.03000	173,656	5,028	(4,394)	(30,371)	(19,982)	123,937	87,816
Total				\$4,624,805	\$133,916	(\$116,372)	(\$808,976)	(\$372,867)	\$3,460,506	\$3,221,771

Unomal	Unempl. Tax Rate Pers. Cons.		Pension Contrib.	401(k) Contrib.	
Unempl.	Idx Nate	Pers. Cons.	Rate	Rate	
3.0%	18.030%	7.55-14.47%	4.000%	0.000%	

## **EXHIBIT 3A.** PRESENT VALUE OF LOST PENSION BENEFITS MR. RONALD D. MILAM SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PENSION CONTRIB.	PROJECTED PENSION	TAXES	CONSUMPTION	NET LOSS	PV of NET Loss
2001	33	0.31	\$0	\$0	\$0	\$0	\$0	\$0
2002	34	1.31	0	0	0	0	0	0
2003	35	2.31	0	0	0	0	0	0
2004	36	3.31	0	0	0	0	0	0
2005	37	4.31	0	0	0	0	0	0
2006	38	5.31	0	0	0	0	0	0
2007	39	6.31	0	0	0	0	0	0
2008	40	7.31	0	0	0	0	0	0
2009	41	8.31	0	0	0	0	0	0
2010	42	9.31	0	0	0	0	0	0
2011	43	10.31	0	0	0	0	0	0
2012	44	11.31	0	0	0	0	0	0
2013	45	12.31	0	0	0	0	0	0
2014	46	13.31	6,494	37,749	(6,806)	(2,828)	34,609	34,609
2015	47	14.31	6,753	66,007	(11,901)	(4,597)	56,262	56,262
2016	48	15.31	7,009	67,327	(12,139)	(4,698)	57,498	57,498
2017	49	16.31	7,260	68,674	(12,382)	(4,801)	58,751	58,751
2018	50	17.31	7,506	70,047	(12,629)	(4,904)	60,019	60,019
2019	51	18.31	7,746	71,448	(12,882)	(5,009)	61,303	61,303
2020	52	19.31	7,978	72,877	(13,140)	(6,721)	60,994	59,654
2021	53	20.31	8,218	74,335	(13,403)	(6,864)	62,287	58,463
2022	54	21.31	8,464	75,822	(13,671)	(10,219)	60,396	54,403
2023	55	22.31	8,718	77,338	(13,944)	(10,436)	61,676	53,317
2024	56	23.31	8,980	78,885	(14,223)	(10,657)	62,984	52,253
2025	57	24.31	9,249	80,463	(14,507)	(10,884)	64,321	51,211
2026	58	25.31	9,527	82,072	(14,798)	(11,115)	65,686	50,191
2027	59	26.31	9,812	83,713	(15,093)	(11,351)	67,081	49,190
2028	60	27.31	6,738	85,387	(15,395)	(11,104)	65,625	46,183
2029	61	28.31	0	87,095	(15,703)	(10,332)	61,060	41,238
2030	62	29.31	0	88,837	(16,017)	(10,538)	62,281	40,368
2031	63	30.31	0	90,614	(16,338)	(10,749)	63,527	39,515
2032	64	31.31	0	92,426	(16,664)	(10,964)	64,797	38,681
2033	65	32.31	0	94,275	(16,998)	(11,183)	66,094	37,864
2034	66	33.31	0	96,161	(17,338)	(11,407)	67,416	37,065
2035	67	34.31	0	98,084	(17,685)	(11,635)	68,764	36,283
2036	68	35.31	0	100,046	(18,038)	(11,868)	70,140	35,517
2037	69	36.31	0	102,047	(18,399)	(12,105)	71,542	34,767
2038	70	37.31	0	104,088	(18,767)	(12,348)	72,973	34,033
2039	71	38.31	0	106,170	(19,142)	(12,595)	74,433	33,314
2040	72	39.31	0	108,293	(19,525)	(12,846)	75,921	32,611
2041	73	40.31	0	110,459	(19,916)	(13,103)	77,440	31,922
2042	74	41.31	0	112,668	(20,314)	(13,365)	78,989	31,248
2043	75	42.31	0	114,921	(20,720)	(13,633)	80,568	30,588
2044	76	43.31	0	117,219	(21,135)	(13,905)	82,179	29,943
2045	77	44.31	0	119,563	(21,557)	(14,183)	83,822	29,310
2046	78	45.31	0	121,954	(21,988)	(14,467)	85,499	28,691
2047	79	45.39	0	10,366	(1,869)	(1,230)	7,267	2,385
Total		=	\$120,452	\$2,967,430	(\$535,028)	(\$338,647)	\$2,214,208	\$1,428,652

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES MR. RONALD D. MILAM

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	TOTAL SERVICES	PRESENT VALUE
2001	33	0.31	\$3,337	\$802	\$4,140	\$4,140
2002	34	1.31	10,884	2,616	13,500	13,500
2003	35	2.31	10,884	2,616	13,500	13,500
2004	36	3.31	10,884	2,616	13,500	13,500
2005	37	4.31	10,884	2,616	13,500	13,500
2006	38	5.31	10,884	2,616	13,500	13,500
2007	39	6.31	10,884	2,616	13,500	13,500
2008	40	7.31	10,884	2,616	13,500	13,500
2009	41	8.31	10,884	2,616	13,500	13,500
2010	42	9.31	10,884	2,616	13,500	13,500
2011	43	10.31	10,884	2,616	13,500	13,500
2012	44	11.31	10,884	2,616	13,500	13,500
2013	45	12.31	10,884	2,616	13,500	13,500
2014	46	13.31	10,884	2,616	13,500	13,500
2015	47	14.31	10,884	2,616	13,500	13,500
2016	48	15.31	10,884	2,616	13,500	13,500
2017	49	16.31	10,884	2,616	13,500	13,500
2018	50	17.31	10,884	2,616	13,500	13,500
2019	51	18.31	8,745	2,448	11,193	11,193
2020	52	19.31	7,056	2,316	9,372	9,166
2021	53	20.31	7,352	1,416	8,768	8,230
2022	54	21.31	7,356	1,404	8,760	7,891
2023	55	22.31	7,356	1,404	8,760	7,573
2024	56	23.31	7,356	1,404	8,760	7,268
2025	57	24.31	7,356	1,404	8,760	6,975
2026	58	25.31	7,356	1,404	8,760	6,693
2027	59	26.31	7,356	1,404	8,760	6,424
2028	60	27.31	6,270	1,404	7,674	5,400
2029	61	28.31	4,080	1,404	5,484	3,704
2030	62	29.31	4,080	1,404	5,484	3,554
2031	63	30.31	4,080	1,404	5,484	3,411
2032	64	31.31	4,080	1,404	5,484	3,274
2033	65	32.31	4,080	1,404	5,484	3,142
2034	66	33.31	4,080	1,404	5,484	3,015
2035	67	34.31	4,080	1,404	5,484	2,894
2036	68	35.31	4,080	1,404	5,484	2,777
2037	69	36.31	4,080	1,404	5,484	2,665
2038	70	37.31	4,080	1,404	5,484	2,558
2039	71	38.31	4,080	1,404	5,484	2,454
2040	72	39.31	4,080	1,404	5,484	2,356
2041	73	39.99	2,788	959	3,748	1,555
Total			\$313,672	\$79,090	\$392,762	\$347,810

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Christopher P. Sullivan** 

December 28, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **May 13, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

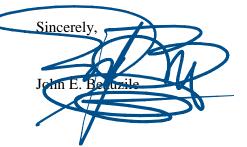
For replacement services, the amount that was awarded by **The Fund** was \$200,000 higher than that set forth in their Valuation Model. The amount computed by the model was \$545,108, whereas the amount that **The Fund** determined to be the appropriate value of lost services was \$745,108. In order to calculate the present value of lost replacement services, we converted the monthly values in **The Fund**'s valuation model to the annual amounts that could have produced the actual amount paid, assuming all else remained the same. This amount was set equal to the model's amount multiplied by 1.3669 (or \$745,108 divided by \$545,108).

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.



Valuation Date	01-Jan-20
Discount Rate	3.9%

## Exhibit 1. Summary of Economic Damages Mr. Christopher P. Sullivan

	Present Value
Present Value of Lost Earnings	\$2,833,821
Present Value of Retirement Benefits	632,617
Present Value of Lost Replacement Services	820,247
Total	\$4,286,685

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.	
85,061	3.0%	19.500%	7,625	7.55-14.47%	

#### Exhibit 2a. Present Value of Lost Earnings Mr. Christopher P. Sullivan Special Master Worklife

Year	Age	Time Frame	Age-Specific Growth Factor	Earnings	Benefits	Unempl. Adj.	Taxes	Consumption	Net Earnings	PV of Net Earnings
2001	39	0.31	1.00000	\$26,083	\$2,338	\$0	(\$5,086)	(\$1,586)	\$21,749	\$21,749
2002	40	1.31	1.05379	89,636	8,035	(2,359)	(16,955)	(5,287)	73,070	73,070
2003	41	2.31	1.05179	94,278	8,451	(2,481)	(17,833)	(5,561)	76,854	76,854
2004	42	3.31	1.04979	98,972	8,872	(2,604)	(18,721)	(5,838)	80,681	80,681
2005	43	4.31	1.04779	103,702	9,296	(2,729)	(19,615)	(6,117)	84,536	84,536
2006	44	5.31	1.04579	108,451	9,721	(2,854)	(20,513)	(6,397)	88,407	88,407
2007	45	6.31	1.04380	113,201	10,147	(2,979)	(21,412)	(6,677)	92,280	92,280
2008	46	7.31	1.04182	117,935	10,571	(3,103)	(22,307)	(6,957)	96,139	96,139
2009	47	8.31	1.03984	122,633	10,992	(3,227)	(23,196)	(7,234)	99,969	99,969
2010	48	9.31	1.03786	127,275	11,409	(3,349)	(24,074)	(7,507)	103,753	103,753
2011	49	10.31	1.03588	131,842	11,818	(3,469)	(24,938)	(7,777)	107,476	107,476
2012	50	11.31	1.03391	136,313	12,219	(3,587)	(25,784)	(8,041)	111,121	111,121
2013	51	12.31	1.03194	140,667	12,609	(3,702)	(26,607)	(8,297)	114,670	114,670
2014	52	13.31	1.03000	144,887	12,987	(3,813)	(27,405)	(8,546)	118,110	118,110
2015	53	14.31	1.03000	149,234	13,377	(3,927)	(28,228)	(11,566)	118,890	118,890
2016	54	15.31	1.03000	153,711	13,778	(4,045)	(29,074)	(11,913)	122,457	122,457
2017	55	16.31	1.03000	158,322	14,192	(4,166)	(29,947)	(17,891)	120,510	120,510
2018	56	17.31	1.03000	163,072	14,617	(4,291)	(30,845)	(18,428)	124,125	124,125
2019	57	18.31	1.03000	167,964	15,056	(4,420)	(31,770)	(18,981)	127,849	127,849
2020	58	19.31	1.03000	173,003	15,507	(4,553)	(32,724)	(19,550)	131,684	128,991
2021	59	20.31	1.03000	178,193	15,973	(4,689)	(33,705)	(20,137)	135,635	127,874
2022	60	21.31	1.03000	183,539	16,452	(4,830)	(34,716)	(20,741)	139,704	126,766
2023	61	22.31	1.03000	189,045	16,945	(4,975)	(35,758)	(21,363)	143,895	125,668
2024	62	23.31	1.03000	194,716	17,454	(5,124)	(36,831)	(22,004)	148,212	124,580
2025	63	24.31	1.03000	200,558	17,977	(5,278)	(37,936)	(22,664)	152,658	123,501
2026	64	25.31	1.03000	206,575	18,517	(5,436)	(39,074)	(23,344)	157,238	122,431
2027	65	25.89	1.03000	124,118	11,126	(3,266)	(23,477)	(14,026)	94,475	71,364
Total			_	\$3,797,928	\$340,435	(\$99,255)	(\$718,531)	(\$334,429)	\$2,986,148	\$2,833,821

Unempl.	Jnempl. Tax Rate Pers		Pension Contrib. Rate	401(k) Contrib. Rate	
3.0%	19.500%	7.55-14.47%	4.000%	0.000%	

#### Exhibit 3a. Present Value of Lost Pension Benefits Mr. Christopher P. Sullivan Special Master Worklife

Year	Age	Time Frame	Pension Contrib.	Net Pension (Projected-Vested)	Taxes	Consumption	Net Loss	PV of Net Loss
2001	39	0.31	(\$600)	\$0	\$0	\$45	(\$555)	(\$555)
2002	40	1.31	(2,062)	0	0	156	(1,906)	(1,906)
2003	41	2.31	(2,253)	0	0	170	(2,082)	(2,082)
2004	42	3.31	(2,365)	0	0	179	(2,187)	(2,187)
2005	43	4.31	(1,446)	(13,887)	2,708	954	(11,671)	(11,671)
2006	44	5.31	0	(33,328)	6,499	2,027	(24,802)	(24,802)
2007	45	6.31	0	(33,328)	6,499	2,027	(24,802)	(24,802)
2008	46	7.31	0	(33,328)	6,499	2,027	(24,802)	(24,802)
2009	47	8.31	0	(33,328)	6,499	2,027	(24,802)	(24,802)
2010	48	9.31	5,290	(3,143)	613	(208)	2,551	2,551
2011	49	10.31	5,585	39,117	(7,628)	(2,801)	34,273	34,273
2012	50	11.31	5,885	39,117	(7,628)	(2,823)	34,551	34,551
2013	51	12.31	6,190	39,117	(7,628)	(2,846)	34,833	34,833
2014	52	13.31	6,498	39,117	(7,628)	(2,870)	35,118	35,118
2015	53	14.31	6,809	39,117	(7,628)	(3,801)	34,497	34,497
2016	54	15.31	7,120	39,117	(7,628)	(3,832)	34,777	34,777
2017	55	16.31	7,432	38,937	(7,593)	(5,612)	33,165	33,165
2018	56	17.31	7,743	38,757	(7,558)	(5,636)	33,307	33,307
2019	57	18.31	8,052	38,577	(7,523)	(5,659)	33,447	33,447
2020	58	19.31	8,356	38,577	(7,523)	(5,704)	33,707	33,018
2021	59	20.31	8,656	38,577	(7,523)	(5,747)	33,964	32,020
2022	60	21.31	8,950	38,577	(7,523)	(5,789)	34,215	31,046
2023	61	22.31	9,236	38,577	(7,523)	(5,831)	34,459	30,095
2024	62	23.31	9,513	38,577	(7,523)	(5,871)	34,696	29,164
2025	63	24.31	9,798	38,577	(7,523)	(5,912)	34,940	28,267
2026	64	25.31	10,092	38,577	(7,523)	(5,955)	35,192	27,402
2027	65	26.31	6,064	38,577	(7,523)	(5,372)	31,746	23,791
2028	66	27.31	0	38,577	(7,523)	(4,494)	26,560	19,157
2029	67	28.31	0	38,577	(7,523)	(4,494)	26,560	18,438
2030	68	29.31	0	38,577	(7,523)	(4,494)	26,560	17,746
2031	69	30.31	0	38,577	(7,523)	(4,494)	26,560	17,080
2032	70	31.31	0	38,577	(7,523)	(4,494)	26,560	16,439
2033	71	32.31	0	38,577	(7,523)	(4,494)	26,560	15,822
2034	72	33.31	0	38,577	(7,523)	(4,494)	26,560	15,228
2035	73	34.31	0	38,577	(7,523)	(4,494)	26,560	14,656
2036	74	35.31	0	38,577	(7,523)	(4,494)	26,560	14,106
2037	75	36.31	0	38,577	(7,523)	(4,494)	26,560	13,577
2038	76	37.31	0	38,577	(7,523)	(4,494)	26,560	13,067
2039	77	38.31	0	38,577	(7,523)	(4,494)	26,560	12,577
2040	78	39.31	0	38,577	(7,523)	(4,494)	26,560	12,105
2041	79	39.72	0	16,073	(3,134)	(1,872)	11,066	4,908
Total			\$128,543	\$1,026,821	(\$200,230)	(\$132,955)	\$822,179	\$632,617

**Exhibit 4a.** Loss Estimated Value of Replacement Services **Mr. Christopher P. Sullivan** 

Year	Age	Time Frame	Household Services	Care Services	Total Services	Present Value
2001	39	0.31	\$2,550	\$14,169	\$16,719	\$16,719
2002	40	1.31	8,316	46,207	54,523	54,523
2003	41	2.31	8,316	46,207	54,523	54,523
2004	42	3.31	8,316	46,207	54,523	54,523
2005	43	4.31	8,316	46,207	54,523	54,523
2006	44	5.31	8,316	46,207	54,523	54,523
2007	45	6.31	8,316	46,207	54,523	54,523
2008	46	7.31	8,316	46,207	54,523	54,523
2009	47	8.31	8,316	46,207	54,523	54,523
2010	48	9.31	18,760	16,090	34,851	34,851
2011	49	10.31	21,980	6,807	28,787	28,787
2012	50	11.31	21,980	6,807	28,787	28,787
2013	51	12.31	21,980	6,807	28,787	28,787
2014	52	13.31	19,857	5,536	25,393	25,393
2015	53	14.31	18,830	4,921	23,751	23,751
2016	54	15.31	12,099	2,618	14,717	14,717
2017	55	16.31	10,055	1,919	11,974	11,974
2018	56	17.31	10,055	1,919	11,974	11,974
2019	57	18.31	10,055	1,919	11,974	11,974
2020	58	19.31	10,055	1,919	11,974	11,729
2021	59	20.31	10,055	1,919	11,974	11,289
2022	60	21.31	10,055	1,919	11,974	10,865
2023	61	22.31	10,055	1,919	11,974	10,457
2024	62	23.31	10,055	1,919	11,974	10,065
2025	63	24.31	10,055	1,919	11,974	9,687
2026	64	25.31	10,055	1,919	11,974	9,323
2027	65	26.31	10,055	1,919	11,974	8,973
2028	66	27.31	10,055	1,919	11,974	8,637
2029	67	28.31	10,055	1,919	11,974	8,312
2030	68	29.31	10,055	1,919	11,974	8,000
2031	69	30.31	10,055	1,919	11,974	7,700
2032	70	31.31	10,055	1,919	11,974	7,411
2033	71	32.31	10,055	1,919	11,974	7,133
2034	72	33.31	10,055	1,919	11,974	6,865
2035	73	34.31	10,055	1,919	11,974	6,607
2036	74	34.82	5,162	985	6,147	3,295
Total			\$400,771	\$470,858	\$871,628	\$820,247

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of Mrs. Margaret Seeliger

December 28, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **June 3, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Be, uz

Valuation Date	01-Jan-20
Discount Rate	4.2%

# **Exhibit 1.** Summary of Economic Damages **Mrs. Margaret Seeliger**

	Present Value
Present Value of Lost Earnings	\$4,813,212
Present Value of Retirement Benefits	568,289
Present Value of Lost Replacement Services	0
Total	\$5,381,500

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Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
159,663	3.0%	26.350%	4,067	12.486%

#### Exhibit 2a. Present Value of Lost Earnings Mrs. Margaret Seeliger Special Master Worklife

Year	Age	Time Frame	Age-Specific Growth Factor	Earnings	Benefits	Unempl. Adj.	Taxes	Consumption	Net Earnings	PV of Net Earnings
2001	35	0.31	1.00000	\$48,959	\$1,247	\$0	(\$12,901)	(\$4,502)	\$32,803	\$32,803
2002	36	1.31	1.06185	169,538	4,318	(3,841)	(43,333)	(15,124)	111,558	111,558
2003	37	2.31	1.05983	179,682	4,577	(4,071)	(45,926)	(16,028)	118,233	118,233
2004	38	3.31	1.05781	190,070	4,841	(4,307)	(48,581)	(16,955)	125,069	125,069
2005	39	4.31	1.05580	200,677	5,111	(4,547)	(51,292)	(17,901)	132,048	132,048
2006	40	5.31	1.05379	211,471	5,386	(4,791)	(54,051)	(18,864)	139,151	139,151
2007	41	6.31	1.05179	222,423	5,665	(5,040)	(56,850)	(19,841)	146,357	146,357
2008	42	7.31	1.04979	233,497	5,947	(5,291)	(59,681)	(20,829)	153,644	153,644
2009	43	8.31	1.04779	244,655	6,231	(5,543)	(62,533)	(21,824)	160,986	160,986
2010	44	9.31	1.04579	255,859	6,517	(5,797)	(65,396)	(22,824)	168,358	168,358
2011	45	10.31	1.04380	267,066	6,802	(6,051)	(68,261)	(23,823)	175,733	175,733
2012	46	11.31	1.04182	278,234	7,087	(6,304)	(71,115)	(24,820)	183,082	183,082
2013	47	12.31	1.03984	289,318	7,369	(6,555)	(73,948)	(25,808)	190,375	190,375
2014	48	13.31	1.03786	300,270	7,648	(6,803)	(76,748)	(26,785)	197,582	197,582
2015	49	14.31	1.03588	311,045	7,922	(7,048)	(79,501)	(27,746)	204,672	204,672
2016	50	15.31	1.03391	321,592	8,191	(7,287)	(82,197)	(28,687)	211,612	211,612
2017	51	16.31	1.03194	331,865	8,453	(7,519)	(84,823)	(29,604)	218,371	218,371
2018	52	17.31	1.03000	341,821	8,706	(7,745)	(87,368)	(30,492)	224,923	224,923
2019	53	18.31	1.03000	352,075	8,967	(7,977)	(89,989)	(31,407)	231,670	231,670
2020	54	19.31	1.03000	362,638	9,236	(8,217)	(92,688)	(32,349)	238,620	233,378
2021	55	20.31	1.03000	373,517	9,514	(8,463)	(95,469)	(33,319)	245,779	230,690
2022	56	21.31	1.03000	384,722	9,799	(8,717)	(98,333)	(34,319)	253,152	228,034
2023	57	22.31	1.03000	396,264	10,093	(8,978)	(101,283)	(35,348)	260,747	225,407
2024	58	23.31	1.03000	408,152	10,396	(9,248)	(104,322)	(36,409)	268,569	222,812
2025	59	24.31	1.03000	420,396	10,708	(9,525)	(107,451)	(37,501)	276,626	220,246
2026	60	25.31	1.03000	433,008	11,029	(9,811)	(110,675)	(38,626)	284,925	217,709
2027	61	25.81	1.03000	222,999	5,680	(5,053)	(56,997)	(19,892)	146,736	108,708
Total		- <del></del>		\$7,751,813	\$197,441	(\$174,529)	(\$1,981,712)	(\$691,628)	\$5,101,385	\$4,813,212

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Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	26.350%	12.486%	0.000%	0.000%

# Exhibit 3a. Present Value of Lost Pension Benefits Mrs. Margaret Seeliger Special Master Worklife

Year	Age	Time Frame	Projected Pension	Vested Pension	Taxes	Consumption	Net Loss	PV of Net Loss
2001	35	0.31	\$0	\$0	\$0	\$0	\$0	\$0
2031	65	30.31	0	0	0	0	0	0
2032	66	31.31	140,764	(1,068)	(36,810)	(12,847)	90,039	53,749
2033	67	32.31	140,764	(1,068)	(36,810)	(12,847)	90,039	51,583
2034	68	33.31	140,764	(1,068)	(36,810)	(12,847)	90,039	49,503
2035	69	34.31	140,764	(1,068)	(36,810)	(12,847)	90,039	47,508
2036	70	35.31	140,764	(1,068)	(36,810)	(12,847)	90,039	45,593
2037	71	36.31	140,764	(1,068)	(36,810)	(12,847)	90,039	43,756
2038	72	37.31	140,764	(1,068)	(36,810)	(12,847)	90,039	41,992
2039	73	38.31	140,764	(1,068)	(36,810)	(12,847)	90,039	40,299
2040	74	39.31	140,764	(1,068)	(36,810)	(12,847)	90,039	38,675
2041	75	40.31	140,764	(1,068)	(36,810)	(12,847)	90,039	37,116
2042	76	41.31	140,764	(1,068)	(36,810)	(12,847)	90,039	35,620
2043	77	42.31	140,764	(1,068)	(36,810)	(12,847)	90,039	34,184
2044	78	43.31	140,764	(1,068)	(36,810)	(12,847)	90,039	32,806
2045	79	43.81	70,382	(534)	(18,405)	(6,423)	45,020	15,904
Total		_	\$1,900,314	(\$14,418)	(\$496,934)	(\$173,433)	\$1,215,530	\$568,289

**Exhibit 4a.** Loss Estimated Value of Replacement Services **Mrs. Margaret Seeliger** 

Year	Age	Time Frame	Household Services	Care Services	Total Services	Present Value	
2001	35	0.31			\$0	\$0	
2002	36	1.31			0	0	
2003	37	2.31			0	0	
2004	38	3.31			0	0	
2005	39	4.31			0	0	
2006	40	5.31			0	0	
2007	41	6.31			0	0	
2008	42	7.31			0	0	
2009	43	8.31			0	0	
2010	44	9.31			0	0	
2011	45	10.31			0	0	
2012	46	11.31			0	0	
2013	47	12.31			0	0	
2014	48	13.31			0	0	
2015	49	14.31			0	0	
2016	50	15.31			0	0	
2017	51	16.31			0	0	
2018	52	17.31			0	0	
2019	53	18.31			0	0	
2020	54	19.31			0	0	
2021	55	20.31			0	0	
2022	56	21.31			0	0	
2023	57	22.31			0	0	
2024	58	22.81			0	0	
Total			\$0	\$0	\$0	\$0	

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Roko Camaj** 

December 26, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **June 4, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits* 2s shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Beauzile

VALUATION DATE	01-Jan-20
DISCOUNT RATE	3.4%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES **ROKO CAMAJ**

	PRESENT VALUE
Present Value of Lost Earnings	\$587,730
Present Value of Retirement Benefits	0
Present Value of Lost Replacement Services	344,400
Total	\$932,130

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Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
64,352	3.0%	17.270%	5,958	12.07-17.81%

### **EXHIBIT 2A.** PRESENT VALUE OF LOST EARNINGS **ROKO CAMAJ**

SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	EARNINGS	BENEFITS	UNEMPL. ADJ.	TAXES	CONSUMPTION	NET EARNINGS	PV OF NET EARNINGS
2001	60	0.31	1.00000	\$19,733	\$1,827	\$0	(\$3,408)	(\$1,970)	\$16,182	\$16,182
2002	61	1.31	1.03100	66,347	6,138	(1,799)	(11,114)	(6,424)	53,147	53,147
2003	62	2.31	1.03100	68,404	6,538	(1,860)	(11,459)	(6,624)	54,999	54,999
2004	63	3.31	1.03100	70,525	6,735	(1,917)	(11,814)	(6,829)	56,699	56,699
2005	64	4.31	1.03000	72,640	6,936	(1,975)	(12,169)	(7,034)	58,399	58,399
2006	65	5.31	1.03000	74,819	7,144	(2,034)	(12,534)	(7,245)	60,151	60,151
2007	66	6.31	1.03000	77,064	7,359	(2,095)	(12,910)	(11,016)	58,402	58,402
2008	67	7.31	1.03000	79,376	7,580	(2,158)	(13,297)	(11,346)	60,155	60,155
2009	68	8.31	1.03000	81,757	7,807	(2,223)	(13,696)	(11,686)	61,959	61,959
2010	69	9.31	1.03000	84,210	8,040	(2,290)	(14,107)	(12,037)	63,817	63,817
2011	70	9.97	1.03000	57,824	5,521	(1,572)	(9,687)	(8,265)	43,820	43,820
Total				\$752,700	\$71,624	(\$19,924)	(\$126,194)	(\$90,476)	\$587,730	\$587,730

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Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	17.270%	12.07-17.81%	0.000%	0.000%

## EXHIBIT 3A. PRESENT VALUE OF LOST PENSION BENEFITS ROKO CAMAJ

SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PENSION CONTRIB.	401 (K)	TAXES	CONSUMPTION	NET LOSS	PV of NET Loss
2001	60	0.31	\$0	\$0	\$0	\$0	\$0	\$0
2002	61	1.31	0	0	0	0	0	0
2003	62	2.31	0	0	0	0	0	0
2004	63	3.31	0	0	0	0	0	0
2005	64	4.31	0	0	0	0	0	0
2006	65	5.31	0	0	0	0	0	0
2007	66	6.31	0	0	0	0	0	0
2008	67	7.31	0	0	0	0	0	0
2009	68	8.31	0	0	0	0	0	0
2010	69	9.31	0	0	0	0	0	0
2011	70	9.97	0	0	0	0	0	0
Total			\$0	\$0	\$0	\$0	\$0	\$0

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES **ROKO CAMAJ** 

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	TOTAL SERVICES	PRESENT VALUE
2001	60	0.31	\$2,749	\$4,140	\$6,888	\$6,888
2002	61	1.31	8,964	13,500	22,464	22,464
2003	62	2.31	8,964	13,500	22,464	22,464
2004	63	3.31	8,964	13,500	22,464	22,464
2005	64	4.31	8,964	13,500	22,464	22,464
2006	65	5.31	8,964	13,500	22,464	22,464
2007	66	6.31	8,964	13,500	22,464	22,464
2008	67	7.31	8,964	13,500	22,464	22,464
2009	68	8.31	8,964	13,500	22,464	22,464
2010	69	9.31	8,964	13,500	22,464	22,464
2011	70	10.31	8,964	13,500	22,464	22,464
2012	71	11.31	8,964	13,500	22,464	22,464
2013	72	12.31	8,964	9,821	18,785	18,785
2014	73	13.31	8,964	1,404	10,368	10,368
2015	74	14.31	8,964	1,404	10,368	10,368
2016	75	15.31	8,964	1,404	10,368	10,368
2017	76	16.31	8,964	1,404	10,368	10,368
2018	77	17.31	8,964	1,404	10,368	10,368
2019	78	18.31	8,964	1,404	10,368	10,368
2020	79	19.23	8,277	1,296	9,573	9,414
Total			\$172,378	\$172,182	\$344,559	\$344,400

# Exhibit B-19

#### John E. Beauzile

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of

The Estate of Mr. Robert Gschaar

December 27, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **May 17, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

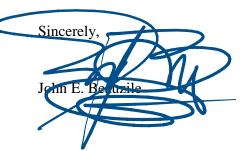
For replacement services, the amount that was awarded by **The Fund** was \$567,330 higher than that set forth in their Valuation Model. The amount computed by the model was \$478,745, whereas the amount that **The Fund** determined to be the appropriate value of lost services was \$1,046,075. In order to calculate the present value of lost replacement services, we converted the monthly values in **The Fund**'s valuation model to the annual amounts that could have produced the actual amount paid, assuming all else remained the same. This amount was set equal to the model's amount multiplied by 2.18504 (or \$1,046,075 divided by \$478,745).

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.



Valuation Date	01-Jan-20
Discount Rate	3.4%

# Exhibit 1. Summary of Economic Damages Mr. Robert Gschaar

	Present Value
Present Value of Lost Earnings	\$473,716
Present Value of Retirement Benefits	100,954
Present Value of Lost Replacement Services	1,211,075
Total	\$1,785,745

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Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
64,633	3.0%	17.270%	2,423	17.812%

#### Exhibit 2a. Present Value of Lost Earnings Mr. Robert Gschaar Special Master Worklife

Year	Age	Time Frame	Age-Specific Growth Factor	Earnings	Benefits	Unempl. Adj.	Taxes	Consumption	Net Earnings	PV of Net Earnings
2001	55	0.31	1.00000	\$19,819	\$743	\$0	(\$3,423)	(\$2,921)	\$14,219	\$14,219
2002	56	1.31	1.03000	66,572	2,496	(1,714)	(11,152)	(9,516)	46,685	46,685
2003	57	2.31	1.03000	68,569	2,571	(1,766)	(11,487)	(9,801)	48,086	48,086
2004	58	3.31	1.03000	70,626	2,648	(1,819)	(11,831)	(10,095)	49,529	49,529
2005	59	4.31	1.03000	72,745	2,727	(1,873)	(12,186)	(10,398)	51,014	51,014
2006	60	5.31	1.03000	74,927	2,809	(1,929)	(12,552)	(10,710)	52,545	52,545
2007	61	6.31	1.03000	77,175	2,893	(1,987)	(12,928)	(11,031)	54,121	54,121
2008	62	7.31	1.03000	79,490	2,980	(2,047)	(13,316)	(11,362)	55,745	55,745
2009	63	8.31	1.03000	81,875	3,069	(2,108)	(13,716)	(11,703)	57,417	57,417
2010	64	9.06	1.03000	63,248	2,371	(1,629)	(10,595)	(9,041)	44,355	44,355
Total			_	\$675,046	\$25,307	(\$16,872)	(\$113,186)	(\$96,579)	\$473,716	\$473,716

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	17.270%	17.812%	4.343%	0.000%

# Exhibit 3a. Present Value of Lost Pension Benefits Mr. Robert Gschaar Special Master Worklife

Year	Age	Time Frame	Pension Contrib.	Net Pension (Projected-Vested)	Taxes	Consumption	Net Loss	PV of Net Loss
2001	55	0.31	\$861	\$0	\$0	(\$153)	\$707	\$707
2002	56	1.31	2,891	0	0	(515)	2,376	2,376
2003	57	2.31	2,889	0	0	(515)	2,374	2,374
2004	58	3.31	2,975	0	0	(530)	2,445	2,445
2005	59	4.31	3,065	0	0	(546)	2,519	2,519
2006	60	5.31	3,157	0	0	(562)	2,594	2,594
2007	61	6.31	3,251	0	0	(579)	2,672	2,672
2008	62	7.31	3,349	0	0	(597)	2,752	2,752
2009	63	8.31	3,449	0	0	(614)	2,835	2,835
2010	64	9.31	2,665	0	0	(475)	2,190	2,190
2011	65	10.31	0	5,756	(994)	(848)	3,914	3,914
2012	66	11.31	0	7,674	(1,325)	(1,131)	5,218	5,218
2013	67	12.31	0	7,674	(1,325)	(1,131)	5,218	5,218
2014	68	13.31	0	7,674	(1,325)	(1,131)	5,218	5,218
2015	69	14.31	0	7,674	(1,325)	(1,131)	5,218	5,218
2016	70	15.31	0	7,674	(1,325)	(1,131)	5,218	5,218
2017	71	16.31	0	7,674	(1,325)	(1,131)	5,218	5,218
2018	72	17.31	0	7,674	(1,325)	(1,131)	5,218	5,218
2019	73	18.31	0	7,674	(1,325)	(1,131)	5,218	5,218
2020	74	19.31	0	7,674	(1,325)	(1,131)	5,218	5,124
2021	75	20.31	0	7,674	(1,325)	(1,131)	5,218	4,956
2022	76	21.31	0	7,674	(1,325)	(1,131)	5,218	4,793
2023	77	22.31	0	7,674	(1,325)	(1,131)	5,218	4,635
2024	78	23.31	0	7,674	(1,325)	(1,131)	5,218	4,483
2025	79	24.31	0	7,674	(1,325)	(1,131)	5,218	4,336
2026	80	25.14	0	6,395	(1,104)	(942)	4,348	3,504
Total			\$28,552	\$119,587	(\$20,653)	(\$22,708)	\$104,778	\$100,954

Exhibit 4a. Loss Estimated Value of Replacement Services
Mr. Robert Gschaar

Year	Age	Time Frame	Household Services	Care Services	Therapy	Total Services	Present Value
2001	55	0.31	\$12,631	\$941	\$2,526	\$16,098	\$16,098
2002	56	1.31	41,192	3,068	8,238	52,498	52,498
2003	57	2.31	41,192	3,068	8,238	52,498	52,498
2004	58	3.31	41,192	3,068	5,712	49,972	49,972
2005	59	4.31	41,192	3,068	0	44,260	44,260
2006	60	5.31	41,192	3,068	0	44,260	44,260
2007	61	6.31	41,192	3,068	0	44,260	44,260
2008	62	7.31	41,192	3,068	0	44,260	44,260
2009	63	8.31	41,192	3,068	0	44,260	44,260
2010	64	9.31	41,192	3,068	0	44,260	44,260
2011	65	10.31	41,192	3,068	0	44,260	44,260
2012	66	11.31	41,192	3,068	0	44,260	44,260
2013	67	12.31	41,192	3,068	0	44,260	44,260
2014	68	13.31	41,192	3,068	0	44,260	44,260
2015	69	14.31	41,192	3,068	0	44,260	44,260
2016	70	15.31	41,192	3,068	0	44,260	44,260
2017	71	16.31	41,192	3,068	0	44,260	44,260
2018	72	17.31	41,192	3,068	0	44,260	44,260
2019	73	18.31	41,192	3,068	0	44,260	44,260
2020	74	19.31	41,192	3,068	0	44,260	43,468
2021	75	20.31	41,192	3,068	0	44,260	42,038
2022	76	21.31	41,192	3,068	0	44,260	40,656
2023	77	22.31	41,192	3,068	0	44,260	39,319
2024	78	23.31	41,192	3,068	0	44,260	38,026
2025	79	24.31	41,192	3,068	0	44,260	36,776
2026	80	25.31	41,192	3,068	0	44,260	35,567
2027	81	26.31	41,192	3,068	0	44,260	34,397
2028	82	27.31	41,192	3,068	0	44,260	33,266
2029	83	28.31	41,192	3,068	0	44,260	32,172
2030	84	28.32	550	41	0	591	423
Total			\$1,166,566	\$86,880	\$24,713	\$1,278,158	\$1,211,075

# Exhibit B-20

#### John E. Beauzile

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Francis Callahan** 

December 26, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **May 20, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Beauzile

VALUATION DATE	01-Jan-20
DISCOUNT RATE	3.9%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES Mr. Francis Callahan

\$1,547,561
68,834 0
\$1,616,396

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Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
100,205	3.0%	20.550%	7,660	5.42-12.49%

### **EXHIBIT 2a.** PRESENT VALUE OF LOST EARNINGS **MR. FRANCIS CALLAHAN**

SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	EARNINGS	BENEFITS	UNEMPL. ADJ.	Taxes	CONSUMPTION	NET EARNINGS	PV OF NET EARNINGS
2001	51	0.31	1.00000	\$30,727	\$2,326	\$0	(\$6,314)	(\$1,323)	\$25,416	\$25,416
2002	52	1.31	1.03000	103,212	7,890	(2,648)	(20,574)	(4,310)	83,570	83,570
2003	53	2.31	1.03000	106,308	8,127	(2,728)	(21,191)	(4,439)	86,077	86,077
2004	54	3.31	1.03000	109,497	8,371	(2,809)	(21,827)	(4,573)	88,659	88,659
2005	55	4.31	1.03000	112,782	8,622	(2,894)	(22,481)	(4,710)	91,319	91,319
2006	56	5.31	1.03000	116,166	8,880	(2,980)	(23,156)	(4,851)	94,058	94,058
2007	57	6.31	1.03000	119,651	9,147	(3,070)	(23,851)	(6,159)	95,718	95,718
2008	58	7.31	1.03000	123,240	9,421	(3,162)	(24,566)	(6,343)	98,590	98,590
2009	59	8.31	1.03000	126,937	9,704	(3,257)	(25,303)	(8,514)	99,568	99,568
2010	60	9.31	1.03000	130,745	9,995	(3,355)	(26,062)	(8,769)	102,555	102,555
2011	61	10.31	1.03000	134,668	10,295	(3,455)	(26,844)	(9,032)	105,631	105,631
2012	62	11.31	1.03000	138,708	10,604	(3,559)	(27,649)	(13,348)	104,755	104,755
2013	63	12.31	1.03000	142,869	10,922	(3,666)	(28,479)	(13,748)	107,898	107,898
2014	64	13.31	1.03000	147,155	11,249	(3,776)	(29,333)	(14,161)	111,135	111,135
2015	65	14.31	1.03000	151,570	11,587	(3,889)	(30,213)	(14,585)	114,469	114,469
2016	66	15.31	1.03000	156,117	11,934	(4,005)	(31,120)	(15,023)	117,903	117,903
2017	67	15.47	1.03000	26,800	2,049	(688)	(5,342)	(2,579)	20,240	20,240
Total				\$1,977,151	\$151,120	(\$49,940)	(\$394,305)	(\$136,466)	\$1,547,561	\$1,547,561

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Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	0.000%	5.42-12.49%	4.000%	0.000%

# **EXHIBIT 3A.** PRESENT VALUE OF LOST PENSION BENEFITS **MR. FRANCIS CALLAHAN**SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PENSION CONTRIB.	401 (K)	TAXES	CONSUMPTION	NET LOSS	PV of NET Loss
2001	51	0.31	\$0	\$0	\$0	\$0	\$0	\$0
2002	52	1.31	4,128	0	0	(224)	3,905	3,905
2003	53	2.31	4,125	0	0	(224)	3,901	3,901
2004	54	3.31	4,248	0	0	(230)	4,018	4,018
2005	55	4.31	4,376	0	0	(237)	4,139	4,139
2006	56	5.31	4,507	0	0	(244)	4,263	4,263
2007	57	6.31	4,642	0	0	(310)	4,332	4,332
2008	58	7.31	4,782	0	0	(319)	4,462	4,462
2009	59	8.31	4,925	0	0	(429)	4,497	4,497
2010	60	9.31	5,073	0	0	(441)	4,631	4,631
2011	61	10.31	5,225	0	0	(455)	4,770	4,770
2012	62	11.31	5,382	0	0	(672)	4,710	4,710
2013	63	12.31	5,543	0	0	(692)	4,851	4,851
2014	64	13.31	5,710	0	0	(713)	4,997	4,997
2015	65	14.31	5,881	0	0	(734)	5,147	5,147
2016	66	15.31	6,057	0	0	(756)	5,301	5,301
2017	67	15.47	1,040	0	0	(130)	910	910
Total			\$75,645	\$0	\$0	(\$6,811)	\$68,834	\$68,834

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES **MR. FRANCIS CALLAHAN** 

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	TOTAL SERVICES	PRESENT VALUE
2001	51	0.31			\$0	\$0
2002	52	1.31			0	0
2003	53	2.31			0	0
2004	54	3.31			0	0
2005	55	4.31			0	0
2006	56	5.31			0	0
2007	57	6.31			0	0
2008	58	7.31			0	0
2009	59	8.31			0	0
2010	60	9.31			0	0
2011	61	10.31			0	0
2012	62	11.31			0	0
2013	63	12.31			0	0
2014	64	13.31			0	0
2015	65	14.31			0	0
2016	66	15.31			0	0
2017	67	16.31			0	0
2018	68	17.31			0	0
Total	<u>-</u>		\$0	\$0	\$0	\$0

# Exhibit B-21

#### John E. Beauzile

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. David P. DeRubbio** 

December 26, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **February 2, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

lehn E. Be

VALUATION DATE	01-Jan-20
DISCOUNT RATE	3.9%

# **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES MR. DAVID P. DERUBBIO

	PRESENT VALUE
Present Value of Lost Earnings	\$2,456,121
Present Value of Retirement Benefits	751,798
Present Value of Lost Replacement Services	0
Total	\$3,207,919

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Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
70,959	3.0%	17.270%	7,631	12.07-17.81%

### EXHIBIT 2a. PRESENT VALUE OF LOST EARNINGS MR. DAVID P. DERUBBIO

SPECIAL WASTER	VVORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	EARNINGS	BENEFITS	UNEMPL. ADJ.	Taxes	CONSUMPTION	NET EARNINGS	PV OF NET EARNINGS
2001	38	0.31	1.00000	\$21,759	\$2,340	\$0	(\$3,758)	(\$2,172)	\$18,169	\$18,169
2002	39	1.31	1.05580	74,919	8,057	(2,059)	(12,550)	(7,254)	61,112	61,112
2003	40	2.31	1.05379	78,949	8,490	(2,170)	(13,225)	(7,645)	64,399	64,399
2004	41	3.31	1.05179	83,038	8,930	(2,283)	(13,910)	(8,041)	67,734	67,734
2005	42	4.31	1.04979	87,172	9,375	(2,396)	(14,603)	(8,441)	71,106	71,106
2006	43	5.31	1.04779	91,338	9,823	(2,511)	(15,301)	(8,844)	74,504	74,504
2007	44	6.31	1.04579	95,520	10,272	(2,626)	(16,001)	(9,249)	77,916	77,916
2008	45	7.31	1.04380	99,705	10,722	(2,741)	(16,702)	(9,654)	81,329	81,329
2009	46	8.31	1.04182	103,874	11,171	(2,855)	(17,401)	(14,848)	79,941	79,941
2010	47	9.31	1.03984	108,012	11,616	(2,969)	(18,094)	(15,439)	83,125	83,125
2011	48	10.31	1.03786	112,101	12,056	(3,081)	(18,779)	(16,024)	86,272	86,272
2012	49	11.31	1.03588	116,123	12,488	(3,192)	(19,453)	(16,599)	89,368	89,368
2013	50	12.31	1.03391	120,061	12,912	(3,300)	(20,112)	(17,162)	92,398	92,398
2014	51	13.31	1.03194	123,896	13,324	(3,406)	(20,755)	(17,710)	95,350	95,350
2015	52	14.31	1.03000	127,613	13,724	(3,508)	(21,378)	(18,241)	98,210	98,210
2016	53	15.31	1.03000	131,441	14,135	(3,613)	(22,019)	(18,788)	101,156	101,156
2017	54	16.31	1.03000	135,384	14,559	(3,721)	(22,679)	(19,352)	104,191	104,191
2018	55	17.31	1.03000	139,446	14,996	(3,833)	(23,360)	(19,933)	107,317	107,317
2019	56	18.31	1.03000	143,629	15,446	(3,948)	(24,061)	(20,530)	110,536	110,536
2020	57	19.31	1.03000	147,938	15,910	(4,067)	(24,782)	(21,146)	113,852	111,524
2021	58	20.31	1.03000	152,376	16,387	(4,189)	(25,526)	(21,781)	117,268	110,558
2022	59	21.31	1.03000	156,948	16,878	(4,314)	(26,292)	(22,434)	120,786	109,600
2023	60	22.31	1.03000	161,656	17,385	(4,444)	(27,080)	(23,107)	124,410	108,651
2024	61	23.31	1.03000	166,506	17,906	(4,577)	(27,893)	(23,800)	128,142	107,710
2025	62	24.31	1.03000	171,501	18,444	(4,714)	(28,730)	(24,514)	131,986	106,777
2026	63	25.31	1.03000	176,646	18,997	(4,856)	(29,592)	(25,250)	135,946	105,852
2027	64	26.31	1.03000	181,945	19,567	(5,001)	(30,479)	(26,007)	140,024	104,935
2028	65	26.56	1.03000	46,850	5,038	(1,288)	(7,848)	(6,697)	36,055	26,380
Total				\$3,356,346	\$360,947	(\$91,661)	(\$562,364)	(\$450,664)	\$2,612,603	\$2,456,121

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	17.270%	12.07-17.81%	4.000%	0.000%

# EXHIBIT 3A. PRESENT VALUE OF LOST PENSION BENEFITS MR. DAVID P. DERUBBIO SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PENSION CONTRIB.	NET PENSION (PROJECTED-VESTED)	TAXES	CONSUMPTION	NET LOSS	PV of NET Loss
2001	38	0.31	(\$109)	\$0	\$0	\$13	(\$96)	(\$96)
2002	39	1.31	(375)	0	0	45	(329)	(329)
2003	40	2.31	(383)	0	0	46	(337)	(337)
2004	41	3.31	(403)	0	0	49	(354)	(354)
2005	42	4.31	(423)	0	0	51	(372)	(372)
2006	43	5.31	(443)	0	0	53	(390)	(390)
2007	44	6.31	(463)	0	0	56	(407)	(407)
2008	45	7.31	(484)	0	0	58	(425)	(425)
2009	46	8.31	(504)	0	0	90	(414)	(414)
2010	47	9.31	(524)	0	0	93	(431)	(431)
2011	48	10.31	(544)	0	0	97	(447)	(447)
2012	49	11.31	(563)	0	0	100	(463)	(463)
2013	50	12.31	(582)	0	0	104	(479)	(479)
2014	51	13.31	(601)	0	0	107	(494)	(494)
2015	52	14.31	(619)	0	0	110	(509)	(509)
2016	53	15.31	(637)	0	0	114	(524)	(524)
2017	54	16.31	(657)	0	0	117	(540)	(540)
2018	55	17.31	(676)	0	0	120	(556)	(556)
2019	56	18.31	0	0	0	0	0	0
2020	57	19.31	0	0	0	0	0	0
2021	58	20.31	0	0	0	0	0	0
2022	59	21.31	0	0	0	0	0	0
2023	60	22.31	6,272	53,692	(9,273)	(9,029)	41,662	36,385
2024	61	23.31	6,460	92,043	(15,896)	(14,714)	67,893	57,068
2025	62	24.31	6,654	92,043	(15,896)	(14,749)	68,053	55,054
2026	63	25.31	6,854	92,043	(15,896)	(14,784)	68,217	53,116
2027	64	26.31	7,059	92,043	(15,896)	(14,821)	68,386	51,249
2028	65	27.31	1,818	92,223	(15,927)	(13,914)	64,200	46,306
2029	66	28.31	0	92,403	(15,958)	(13,617)	62,828	43,616
2030	67	29.31	0	92,583	(15,989)	(13,643)	62,951	42,060
2031	68	30.31	0	92,763	(16,020)	(13,670)	63,073	40,560
2032	69	31.31	0	92,943	(16,051)	(13,696)	63,196	39,113
2033	70	32.31	0	93,123	(16,082)	(13,723)	63,318	37,718
2034	71	33.31	0	93,303	(16,113)	(13,749)	63,440	36,373
2035	72	34.31	0	93,483	(16,145)	(13,776)	63,563	35,075
2036	73	35.31	0	93,663	(16,176)	(13,802)	63,685	33,823
2037	74	36.31	0	93,843	(16,207)	(13,829)	63,807	32,616
2038	75	37.31	0	94,023	(16,238)	(13,855)	63,930	31,452
2039	76	38.31	0	94,203	(16,269)	(13,882)	64,052	30,329
2040	77	39.31	0	94,383	(16,300)	(13,908)	64,175	29,247
2041	78	40.31	0	94,563	(16,331)	(13,935)	64,297	28,203
Total		_	\$26,129	\$1,729,366	(\$298,661)	(\$259,673)	\$1,197,160	\$751,798

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES MR. DAVID P. DERUBBIO

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	TOTAL SERVICES	PRESENT VALUE
2001	38	0.31			\$0	\$0
2002	39	1.31			0	0
2003	40	2.31			0	0
2004	41	3.31			0	0
2005	42	4.31			0	0
2006	43	5.31			0	0
2007	44	6.31			0	0
2008	45	7.31			0	0
2009	46	8.31			0	0
2010	47	9.31			0	0
2011	48	10.31			0	0
2012	49	11.31			0	0
2013	50	12.31			0	0
2014	51	13.31			0	0
2015	52	14.31			0	0
2016	53	15.31			0	0
2017	54	16.31			0	0
2018	55	17.31			0	0
Total			\$0	\$0	\$0	\$0

# Exhibit B-22

#### John E. Beauzile

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. Douglas C. Miller** 

December 27, 2019

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **The Fund** dated **June 1, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **The Fund**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **The Fund** and, therefore, they will not be restated here.

The update of **The Fund**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

enn E. Be. u.

VALUATION DATE	01-Jan-20
DISCOUNT RATE	4.2%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES MR. DOUGLAS C. MILLER

	PRESENT VALUE
Present Value of Lost Earnings	\$4,641,588
Present Value of Retirement Benefits	1,131,141
Present Value of Lost Replacement Services	459,021
Total	\$6,231,751

Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
93,142	3.0%	10.410%	7,647	5.42-12.49%

### **EXHIBIT 2A.** PRESENT VALUE OF LOST EARNINGS MR. DOUGLAS C. MILLER

SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE+ SPECIFIC GROWTH FACTOR	EARNINGS	BENEFITS	UNEMPL. ADJ.	TAXES	CONSUMPTION	NET EARNINGS	PV OF NET EARNINGS
2001	34	0.31	1.00000	\$28,561	\$2,345	\$0	(\$2,973)	(\$1,387)	\$26,546	\$26,546
2002	35	1.31	1.06388	99,091	8,136	(2,882)	(10,006)	(4,666)	89,673	89,673
2003	36	2.31	1.06185	105,220	8,639	(3,060)	(10,625)	(4,955)	95,220	95,220
2004	37	3.31	1.05983	111,516	9,156	(3,243)	(11,261)	(5,251)	100,917	100,917
2005	38	4.31	1.05781	117,963	9,685	(3,431)	(11,912)	(5,555)	106,751	106,751
2006	39	5.31	1.05580	124,546	10,226	(3,622)	(12,576)	(5,865)	112,708	112,708
2007	40	6.31	1.05379	131,245	10,776	(3,817)	(13,253)	(6,180)	118,771	118,771
2008	41	7.31	1.05179	138,042	11,334	(4,015)	(13,939)	(6,500)	124,922	124,922
2009	42	8.31	1.04979	144,915	11,898	(4,215)	(14,633)	(6,824)	131,141	131,141
2010	43	9.31	1.04779	151,840	12,467	(4,416)	(15,332)	(7,150)	137,408	137,408
2011	44	10.31	1.04579	158,793	13,038	(4,618)	(16,034)	(7,477)	143,701	143,701
2012	45	11.31	1.04380	165,749	13,609	(4,821)	(16,737)	(7,805)	149,995	149,995
2013	46	12.31	1.04182	172,680	14,178	(5,022)	(17,437)	(8,131)	156,268	156,268
2014	47	13.31	1.03984	179,559	14,743	(5,222)	(18,131)	(10,422)	160,527	160,527
2015	48	14.31	1.03786	186,357	15,301	(5,420)	(18,818)	(10,816)	166,604	166,604
2016	49	15.31	1.03588	193,043	15,850	(5,614)	(19,493)	(14,600)	169,186	169,186
2017	50	16.31	1.03391	199,590	16,387	(5,805)	(20,154)	(15,095)	174,923	174,923
2018	51	17.31	1.03194	205,965	16,911	(5,990)	(20,798)	(22,349)	173,738	173,738
2019	52	18.31	1.03000	212,144	17,418	(6,170)	(21,422)	(23,020)	178,951	178,951
2020	53	19.31	1.03000	218,508	17,941	(6,355)	(22,064)	(23,710)	184,319	180,270
2021	54	20.31	1.03000	225,063	18,479	(6,546)	(22,726)	(24,422)	189,849	178,194
2022	55	21.31	1.03000	231,815	19,033	(6,742)	(23,408)	(25,154)	195,544	176,141
2023	56	22.31	1.03000	238,770	19,604	(6,944)	(24,110)	(25,909)	201,410	174,113
2024	57	23.31	1.03000	245,933	20,192	(7,153)	(24,834)	(26,686)	207,453	172,108
2025	58	24.31	1.03000	253,311	20,798	(7,367)	(25,579)	(27,487)	213,676	170,126
2026	59	25.31	1.03000	260,910	21,422	(7,588)	(26,346)	(28,311)	220,087	168,166
2027	60	26.31	1.03000	268,738	22,065	(7,816)	(27,136)	(29,161)	226,689	166,230
2028	61	27.31	1.03000	276,800	22,727	(8,050)	(27,950)	(30,036)	233,490	164,315
2029	62	28.31	1.03000	285,104	23,408	(8,292)	(28,789)	(30,937)	240,495	162,423
2030	63	29.31	1.03000	293,657	24,111	(8,541)	(29,653)	(31,865)	247,709	160,553
2031	64	30.31	1.03000	302,466	24,834	(8,797)	(30,542)	(32,821)	255,141	158,704
2032	65	30.89	1.03000	181,733	14,921	(5,285)	(18,351)	(19,720)	153,298	92,295
Total				\$6,109,628	\$501,631	(\$176,860)	(\$617,021)	(\$530,267)	\$5,287,111	\$4,641,588

Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate
3.0%	10.410%	5.42-12.49%	4.000%	0.000%

# EXHIBIT 3A. PRESENT VALUE OF LOST PENSION BENEFITS MR. DOUGLAS C. MILLER SPECIAL MASTER WORKLIFE

2002         35         1.31         (1,311)         0         0         72         (1,240)         1,220         1,220         1,220         1,220         1,220         1,220         1,220         1,220         1,220         1,220         1,220         1,220         0         0         88         (1,538)         1,141         1,220         0         0         88         (1,538)         1,141         1,220         0         0         0         93         (1,623)         1,111         1,120         0         0         98         (1,711)         1,111         1,120         0         0         0         98         (1,711)         1,111         1,120         0         0         1,131         1,120         0         0         1,131         1,120         0         0         1,131         1,120         0         0         1,131         1,120         0         0         1,131         1,120         0         0         1,131         1,120         0         0         1,131         1,120         0         0         1,141         1,120         0         1,141         1,120         0         1,141         1,142         0         1,141         1,142         1,141         1,	YEAR	AGE	TIME FRAME	NET PENSION CONTRIB.	NET PENSION (PROJECTED-VESTED)	TAXES	CONSUMPTION	NET LOSS	PV of NET Loss
2003         36         2.31         (1,450)         0         0         79         (1,372)         (1,200)           2004         37         3.31         (1,537)         0         0         88         (1,538) <td>2001</td> <td>34</td> <td>0.31</td> <td>(\$378)</td> <td>\$0</td> <td>\$0</td> <td>\$20</td> <td>(\$357)</td> <td>(\$357)</td>	2001	34	0.31	(\$378)	\$0	\$0	\$20	(\$357)	(\$357)
2004         37         3.31         (1.526)         0         0         83         (1.546)         1           2005         38         4.31         (1.626)         0         0         0         88         (1.538)         (1           2006         39         5.31         (1.716)         0         0         0         98         (1.711)         (1           2007         40         6.51         (1.809)         0         0         0         98         (1.711)         (1           2008         41         7.31         (1.998)         0         0         108         (1.899)         (1           2001         43         9.31         (2.093)         0         0         113         (1.899)         (1           2011         44         10.31         (2.188)         0         0         119         (2.070)         (2           2011         45         11.31         (2.285)         0         0         129         (2.252)         (2         (2         12         (2         12         (2         12         (2         12         (2         12         (2         12         (2         2         (3	2002	35	1.31	(1,311)	0	0	71	(1,240)	(1,240)
2005         38         4.31         (1,626)         0         0         88         (1,538)         (1,223)         (1,223)         (1,223)         (1,223)         (1,223)         (1,223)         (1,213)         (1,223)         (1,213)         (1,223)         (1,211)         (1,223)         (1,211)         (1,223)         (1,211)         (1,223)         (1,211)         (1,223)         (1,211)         (1,223)         (1,211)         (1,223)         (1,211)         (1,223)         (1,211)         (1,223)         (1,211)         (1,223)         (1,211)         (1,223)         (1,211)         (1,223)         (1,211)         (1,211)         (1,223)         (1,211)         (1,211)         (1,211)         (1,211)         (1,211)         (1,211)         (1,211)         (1,211)         (1,211)         (1,211)         (1,211)         (1,211)         (1,211)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (1,211)         (1,227)         (	2003	36	2.31	(1,450)	0	0	79	(1,372)	(1,372)
2006         39         5.31         (1,716)         0         0         93         (1,523)         (1,722)           2007         40         6.31         (1,809)         0         0         98         (1,711)         (1,202)           2008         41         7.31         (1,998)         0         0         108         (1,899)         (1,999)	2004	37	3.31	(1,537)	0	0	83	(1,454)	(1,454)
2007         40         631         (1,809)         0         0         98         (1,711)         (1,712)           2008         41         7,31         (1,902)         0         0         0         103         (1,799)         (1,799)         (1,799)         (1,799)         (1,707)         (2,189)         0         0         108         (1,890)         (1,1890)         (1,	2005	38	4.31	(1,626)	0	0	88	(1,538)	(1,538)
2008         41         7.31         (1,902)         0         0         103         (1,799)         (1,799)           2009         42         8.31         (1,998)         0         0         0         108         (1,890)         (1           2010         43         9.31         (2,093)         0         0         113         (1,980)         (1           2011         44         10.31         (2,188)         0         0         0         119         (2,070)         (2           2013         46         12.31         (2,381)         0         0         129         (2,252)         (2           2014         47         13.31         (2,476)         0         0         165         (2,310)         (2           2015         48         14.31         (2,141)         (1,827)         190         252         (3,525)         (3           2016         49         15.31         0         (10,960)         1,141         855         (6,965)         (8           2017         50         16.31         0         (10,960)         1,414         1,226         (8,593)         (8           2019         52         18.3	2006	39	5.31	(1,716)	0	0	93	(1,623)	(1,623)
2009         42         8.31         (1,998)         0         0         108         (1,890)         (1,290)           2010         43         9.31         (2,093)         0         0         113         (1,980)         (1,290)           2011         44         10.31         (2,188)         0         0         119         (2,070)         (2           2012         45         11.31         (2,285)         0         0         124         (2,161)         (2           2013         46         12.31         (2,381)         0         0         129         (2,252)         (2           2014         47         13.31         (2,476)         0         0         165         (2,310)         (2           2016         49         15.31         0         (10,960)         1,141         855         (8,965)         (8           2016         49         15.31         0         (10,960)         1,141         1,256         (8,593)         (8           2018         51         17.31         0         (10,960)         1,141         1,226         (8,593)         (8           2018         52         18.31         0	2007	40	6.31	(1,809)	0	0	98	(1,711)	(1,711)
2010	2008	41	7.31	(1,902)	0	0	103	(1,799)	(1,799)
2011	2009	42	8.31	(1,998)	0	0	108	(1,890)	(1,890)
2012         45         11.31         (2,285)         0         0         124         (2,161)         (2           2013         46         12.31         (2,381)         0         0         129         (2,252)         (2           2014         47         13.31         (2,476)         0         0         165         (2,310)         (2           2015         48         14.31         (2,141)         (1,827)         190         252         (3,525)         (3           2016         49         15.31         0         (10,960)         1,141         855         (8,965)         (8           2017         50         16.31         0         (10,960)         1,141         1,226         (8,593)         (8           2018         51         17.31         0         (10,960)         1,141         1,226         (8,593)         (8           2019         52         18.31         0         (10,960)         1,141         1,226         (8,593)         (8           2020         53         19.31         9,108         6,391         (665)         (1,522)         12,981         12           2021         54         20.31 <t< td=""><td>2010</td><td>43</td><td>9.31</td><td>(2,093)</td><td>0</td><td>0</td><td>113</td><td>(1,980)</td><td>(1,980)</td></t<>	2010	43	9.31	(2,093)	0	0	113	(1,980)	(1,980)
2012	2011	44	10.31	(2,188)	0	0	119	(2,070)	(2,070)
2013         46         12.31         (2,381)         0         0         129         (2,252)         (2           2014         47         13.31         (2,476)         0         0         165         (2,310)         (2           2015         48         14.31         (2,141)         (1,927)         190         252         (3,525)         (3           2016         49         15.31         0         (10,960)         1,141         855         (8,965)         (8           2017         50         16.31         0         (10,960)         1,141         1,226         (8,593)         (8           2018         51         17.31         0         (10,960)         1,141         1,226         (8,593)         (8           2019         52         18.31         0         (10,960)         1,141         1,226         (8,593)         (8           2020         53         19.31         9,108         6,391         (665)         (1,852)         12,981         12           2021         54         20.31         9,525         93,144         (9,696)         (11,601)         81,728         73           2023         56         22.31 <td>2012</td> <td>45</td> <td>11.31</td> <td>(2,285)</td> <td>0</td> <td>0</td> <td>124</td> <td></td> <td>(2,161)</td>	2012	45	11.31	(2,285)	0	0	124		(2,161)
2014         47         13.31         (2,476)         0         0         165         (2,310)         (2           2015         48         14.31         (2,141)         (1,827)         190         252         (3,525)         (3           2016         49         15.31         0         (10,960)         1,141         855         (8,965)         (8           2017         50         16.31         0         (10,960)         1,141         855         (8,965)         (8           2019         52         18.31         0         (10,960)         1,141         1,226         (8,593)         (8           2020         53         19.31         9,108         6,391         (665)         (1,852)         12,981         12           2021         54         20.31         9,525         93,144         (9,696)         (11,661)         81,728         73           2022         55         21.31         10,358         93,144         (9,696)         (11,713)         82,092         70           2024         57         23.31         10,770         93,144         (9,696)         (11,743)         82,492         202         58         24.31         11,178	2013	46	12.31		0	0	129	(2,252)	(2,252)
2015         48         14.31         (2,141)         (1,827)         190         252         (3,525)         (3           2016         49         15.31         0         (10,960)         1,141         855         (8,965)         (8           2018         51         17.31         0         (10,960)         1,141         1,226         (8,593)         (8           2019         52         18.31         0         (10,960)         1,141         1,226         (8,593)         (8           2019         52         18.31         9,108         6,391         (665)         (1,552)         12,981         12           2021         54         20.31         9,525         93,144         (9,696)         (11,609)         81,363         76           2022         55         21.31         10,358         93,144         (9,696)         (11,661)         81,728         73           2023         56         22.31         10,358         93,144         (9,696)         (11,764)         82,453         68           2025         58         24.31         11,178         93,034         (9,685)         11,180         82,453         68           2026	2014	47	13.31	(2,476)	0	0	165		(2,310)
2016         49         15.31         0         (10,960)         1,141         855         (8,965)         (8           2017         50         16.31         0         (10,960)         1,141         1,226         (8,593)         (8           2018         51         17.31         0         (10,960)         1,141         1,226         (8,593)         (8           2019         52         18.31         0         (10,960)         1,141         1,226         (8,593)         (8           2020         53         19.31         9,108         6,391         (665)         (1,552)         12,981         12           2021         54         20.31         9,525         93,144         (9,696)         (11,609)         81,363         76           2022         55         21.31         10,358         93,144         (9,696)         (11,764)         82,453         68           2023         56         22.31         10,770         93,144         (9,696)         (11,764)         82,453         68           2025         58         24.31         11,178         93,034         (9,685)         (11,803)         82,724         65           2026									(3,525)
2017         50         16.31         0         (10,960)         1,141         855         (8,965)         (8           2018         51         17.31         0         (10,960)         1,141         1,226         (8,593)         (8           2019         52         18.31         0         (10,960)         1,141         1,226         (8,593)         (8           2020         53         19.31         9,108         6,391         (665)         (1,852)         12,981         12           2021         54         20.31         9,525         93,144         (9,696)         (11,661)         81,728         73           2023         56         22.31         10,358         93,144         (9,696)         (11,764)         82,453         68           2024         57         23.31         10,770         93,144         (9,696)         (11,764)         82,453         68           2025         58         24.31         11,178         93,034         (9,685)         (11,803)         82,724         65           2026         59         25.31         11,579         92,292         (9,673)         (11,841)         82,988         63           2027									(8,965)
2018         51         17.31         0         (10,960)         1,141         1,226         (8,593)         (8           2019         52         18.31         0         (10,960)         1,141         1,226         (8,593)         (8           2020         53         19.31         9,108         6,391         (665)         (1,852)         12,981         12           2021         54         20.31         9,525         93,144         (9,696)         (11,609)         81,363         76           2022         55         21.31         9,942         93,144         (9,696)         (11,713)         82,092         70           2024         57         23.31         10,770         93,144         (9,696)         (11,764)         82,453         68           2025         58         24.31         11,178         93,034         (9,685)         (11,803)         82,724         65           2026         59         25.31         11,579         92,923         (9,673)         (11,841)         82,988         63           2027         60         26.31         11,972         92,811         (9,662)         (11,877)         83,244         61           2									(8,965)
2019         52         18.31         0         (10,960)         1,141         1,226         (8,593)         (8           2020         53         19.31         9,108         6,391         (665)         (1,852)         12,981         12           2021         54         20.31         9,525         93,144         (9,696)         (11,609)         81,363         76           2022         55         21.31         9,942         93,144         (9,696)         (11,761)         82,292         70           2024         57         23.31         10,770         93,144         (9,696)         (11,764)         82,453         68           2025         58         24.31         11,178         93,034         (9,696)         (11,764)         82,453         68           2026         59         25.31         11,579         92,923         (9,673)         (11,841)         82,988         63           2027         60         26.31         11,572         92,811         (9,662)         (11,877)         83,244         61           2028         61         27.31         12,354         92,698         (9,650)         (11,912)         83,490         58									(8,593)
2020         53         19.31         9,108         6,391         (665)         (1,852)         12,981         12           2021         54         20.31         9,525         93,144         (9,696)         (11,609)         81,363         76           2022         55         21.31         9,942         93,144         (9,696)         (11,661)         81,728         73           2023         56         22.31         10,358         93,144         (9,696)         (11,764)         82,453         68           2024         57         23.31         10,770         93,144         (9,696)         (11,764)         82,453         68           2025         58         24.31         11,178         93,034         (9,685)         (11,803)         82,724         65           2026         59         25.31         11,579         92,923         (9,673)         (11,841)         82,988         63           2027         60         26.31         11,972         92,811         (9,662)         (11,877)         83,244         61           2028         61         27.31         12,354         92,698         (9,657)         (11,966)         83,866         56									(8,593)
2021         54         20.31         9,525         93,144         (9,696)         (11,609)         81,363         76           2022         55         21.31         9,942         93,144         (9,696)         (11,613)         82,722         70           2023         56         22.31         10,358         93,144         (9,696)         (11,764)         82,453         68           2024         57         23.31         10,770         93,144         (9,696)         (11,764)         82,453         68           2025         58         24.31         11,178         93,034         (9,685)         (11,803)         82,724         65           2026         59         25.31         11,579         92,923         (9,673)         (11,841)         82,988         63           2027         60         26.31         11,972         92,811         (9,662)         (11,972)         83,244         61           2028         61         27.31         12,354         92,698         (9,650)         (11,912)         83,490         58           2030         63         29.31         13,106         92,829         (9,663)         (12,027)         84,645         52									12,696
2022         55         21.31         9,942         93,144         (9,696)         (11,661)         81,728         73           2023         56         22.31         10,358         93,144         (9,696)         (11,713)         82,092         70           2024         57         23.31         10,770         93,144         (9,696)         (11,764)         82,453         68           2025         58         24.31         11,178         93,034         (9,685)         (11,803)         82,724         65           2026         59         25.31         11,579         92,923         (9,673)         (11,871)         83,244         61           2027         60         26.31         11,972         92,811         (9,662)         (11,877)         83,244         61           2028         61         27.31         12,354         92,698         (9,650)         (11,912)         83,490         58           2028         62         28.31         12,725         92,764         (9,657)         (11,966)         83,866         56           2030         63         29.31         13,106         92,829         (9,663)         (12,077)         84,645         52				,					76,368
2023         56         22.31         10,358         93,144         (9,696)         (11,713)         82,092         70           2024         57         23.31         10,770         93,144         (9,696)         (11,764)         82,453         68           2025         58         24.31         11,178         93,034         (9,685)         (11,803)         82,724         65           2026         59         25.31         11,579         92,923         (9,673)         (11,841)         82,988         63           2027         60         26.31         11,972         92,811         (9,662)         (11,877)         83,244         61           2028         61         27.31         12,354         92,698         (9,650)         (11,912)         83,490         58           2029         62         28.31         12,725         92,764         (9,657)         (11,966)         83,866         56           2030         63         29.31         13,106         92,829         (9,663)         (12,021)         84,251         54           2031         64         30.31         13,500         92,893         (9,677)         (11,411)         79,978         47									73,619
2024         57         23.31         10,770         93,144         (9,696)         (11,764)         82,453         68           2025         58         24.31         11,178         93,034         (9,685)         (11,803)         82,724         65           2026         59         25.31         11,579         92,923         (9,673)         (11,841)         82,988         63           2027         60         26.31         11,972         92,811         (9,662)         (11,877)         83,244         61           2028         61         27.31         12,354         92,698         (9,650)         (11,912)         83,490         58           2029         62         28.31         12,725         92,764         (9,657)         (11,966)         83,866         56           2030         63         29.31         13,106         92,829         (9,663)         (12,021)         84,251         54           2031         64         30.31         13,500         92,893         (9,670)         (12,077)         84,645         52           2032         65         31.31         8,111         92,955         (9,677)         (11,411)         79,978         47									70,966
2025         58         24.31         11,178         93,034         (9,685)         (11,803)         82,724         65           2026         59         25.31         11,579         92,923         (9,673)         (11,841)         82,988         63           2027         60         26.31         11,972         92,811         (9,662)         (11,877)         83,244         61           2028         61         27.31         12,354         92,698         (9,650)         (11,912)         83,490         58           2029         62         28.31         12,725         92,764         (9,657)         (11,966)         83,866         56           2030         63         29.31         13,106         92,829         (9,663)         (12,021)         84,251         54           2031         64         30.31         13,500         92,893         (9,670)         (12,077)         84,645         52           2032         65         31.31         8,111         92,955         (9,677)         (11,411)         79,978         47           2033         66         32.31         0         93,076         (9,689)         (10,412)         72,2975         40 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>68,405</td></t<>									68,405
2026         59         25.31         11,579         92,923         (9,673)         (11,841)         82,988         63           2027         60         26.31         11,972         92,811         (9,662)         (11,877)         83,244         61           2028         61         27.31         12,354         92,698         (9,650)         (11,912)         83,490         58           2029         62         28.31         12,725         92,764         (9,657)         (11,966)         83,866         56           2030         63         29.31         13,106         92,829         (9,663)         (12,021)         84,251         54           2031         64         30.31         13,500         92,893         (9,670)         (12,077)         84,645         52           2032         65         31.31         8,111         92,955         (9,677)         (11,411)         79,978         47           2033         66         32.31         0         93,076         (9,689)         (10,412)         72,975         40           2034         67         33.31         0         93,135         (9,695)         (10,412)         72,975         40									65,863
2027         60         26.31         11,972         92,811         (9,662)         (11,877)         83,244         61           2028         61         27.31         12,354         92,698         (9,650)         (11,912)         83,490         58           2029         62         28.31         12,725         92,764         (9,657)         (11,966)         83,866         56           2030         63         29.31         13,106         92,829         (9,663)         (12,021)         84,251         54           2031         64         30.31         13,500         92,893         (9,670)         (12,077)         84,645         52           2032         65         31.31         8,111         92,955         (9,677)         (11,411)         79,978         47           2033         66         32.31         0         93,016         (9,683)         (10,405)         72,928         41           2034         67         33.31         0         93,076         (9,689)         (10,412)         72,975         40           2035         68         34.31         0         93,135         (9,695)         (10,419)         73,021         38									63,410
2028         61         27.31         12,354         92,698         (9,650)         (11,912)         83,490         58           2029         62         28.31         12,725         92,764         (9,657)         (11,966)         83,866         56           2030         63         29.31         13,106         92,829         (9,663)         (12,021)         84,251         54           2031         64         30.31         13,500         92,893         (9,670)         (12,077)         84,645         52           2032         65         31.31         8,111         92,955         (9,677)         (11,411)         79,978         47           2033         66         32.31         0         93,016         (9,683)         (10,405)         72,928         41           2034         67         33.31         0         93,076         (9,689)         (10,412)         72,975         40           2035         68         34.31         0         93,135         (9,695)         (10,419)         73,021         38           2036         69         35.31         0         93,193         (9,701)         (10,425)         73,066         36           2									61,042
2029         62         28.31         12,725         92,764         (9,657)         (11,966)         83,866         56           2030         63         29.31         13,106         92,829         (9,663)         (12,021)         84,251         54           2031         64         30.31         13,500         92,893         (9,670)         (12,077)         84,645         52           2032         65         31.31         8,111         92,955         (9,677)         (11,411)         79,978         47           2033         66         32.31         0         93,016         (9,683)         (10,405)         72,928         41           2034         67         33.31         0         93,076         (9,689)         (10,412)         72,975         40           2035         68         34.31         0         93,135         (9,689)         (10,412)         73,021         38           2036         69         35.31         0         93,193         (9,701)         (10,425)         73,066         36           2037         70         36.31         0         93,249         (9,707)         (10,431)         73,110         35           2038 </td <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td>,</td> <td>58,755</td>				,				,	58,755
2030       63       29.31       13,106       92,829       (9,663)       (12,021)       84,251       54         2031       64       30.31       13,500       92,893       (9,670)       (12,077)       84,645       52         2032       65       31.31       8,111       92,955       (9,677)       (11,411)       79,978       47         2033       66       32.31       0       93,016       (9,683)       (10,405)       72,928       41         2034       67       33.31       0       93,076       (9,689)       (10,412)       72,975       40         2035       68       34.31       0       93,135       (9,695)       (10,419)       73,021       38         2036       69       35.31       0       93,193       (9,701)       (10,425)       73,066       36         2037       70       36.31       0       93,494       (9,707)       (10,431)       73,110       35         2038       71       37.31       0       93,304       (9,713)       (10,438)       73,153       34         2040       73       39.31       0       93,411       (9,724)       (10,450)       73,237 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>56,641</td></t<>									56,641
2031       64       30.31       13,500       92,893       (9,670)       (12,077)       84,645       52         2032       65       31.31       8,111       92,955       (9,677)       (11,411)       79,978       47         2033       66       32.31       0       93,016       (9,683)       (10,405)       72,928       41         2034       67       33.31       0       93,076       (9,689)       (10,412)       72,975       40         2035       68       34.31       0       93,135       (9,695)       (10,419)       73,021       38         2036       69       35.31       0       93,193       (9,701)       (10,425)       73,066       36         2037       70       36.31       0       93,249       (9,707)       (10,431)       73,110       35         2038       71       37.31       0       93,358       (9,713)       (10,438)       73,153       34         2039       72       38.31       0       93,358       (9,719)       (10,444)       73,196       32         2040       73       39.31       0       93,411       (9,724)       (10,450)       73,237       31<									54,607
2032       65       31.31       8,111       92,955       (9,677)       (11,411)       79,978       47         2033       66       32.31       0       93,016       (9,683)       (10,405)       72,928       41         2034       67       33.31       0       93,076       (9,689)       (10,412)       72,975       40         2035       68       34.31       0       93,135       (9,695)       (10,419)       73,021       38         2036       69       35.31       0       93,193       (9,701)       (10,425)       73,066       36         2037       70       36.31       0       93,249       (9,707)       (10,431)       73,110       35         2038       71       37.31       0       93,358       (9,713)       (10,438)       73,153       34         2039       72       38.31       0       93,358       (9,719)       (10,444)       73,196       32         2040       73       39.31       0       93,411       (9,724)       (10,450)       73,237       31         2041       74       40.31       0       93,562       (9,729)       (10,455)       73,317       29					,				52,651
2033       66       32.31       0       93,016       (9,683)       (10,405)       72,928       41         2034       67       33.31       0       93,076       (9,689)       (10,412)       72,975       40         2035       68       34.31       0       93,135       (9,695)       (10,419)       73,021       38         2036       69       35.31       0       93,193       (9,701)       (10,425)       73,066       36         2037       70       36.31       0       93,249       (9,707)       (10,431)       73,110       35         2038       71       37.31       0       93,304       (9,713)       (10,438)       73,153       34         2039       72       38.31       0       93,358       (9,719)       (10,444)       73,196       32         2040       73       39.31       0       93,411       (9,724)       (10,450)       73,237       31         2041       74       40.31       0       93,562       (9,729)       (10,455)       73,277       30         2042       75       41.31       0       93,561       (9,740)       (10,466)       73,355       27									47,743
2034       67       33.31       0       93,076       (9,689)       (10,412)       72,975       40         2035       68       34.31       0       93,135       (9,695)       (10,419)       73,021       38         2036       69       35.31       0       93,193       (9,701)       (10,425)       73,066       36         2037       70       36.31       0       93,249       (9,707)       (10,431)       73,110       35         2038       71       37.31       0       93,304       (9,713)       (10,438)       73,153       34         2039       72       38.31       0       93,358       (9,719)       (10,444)       73,196       32         2040       73       39.31       0       93,411       (9,724)       (10,450)       73,237       31         2041       74       40.31       0       93,462       (9,729)       (10,455)       73,277       30         2042       75       41.31       0       93,561       (9,740)       (10,461)       73,317       29         2043       76       42.31       0       93,609       (9,745)       (10,472)       73,393       26									
2035       68       34.31       0       93,135       (9,695)       (10,419)       73,021       38         2036       69       35.31       0       93,193       (9,701)       (10,425)       73,066       36         2037       70       36.31       0       93,249       (9,707)       (10,431)       73,110       35         2038       71       37.31       0       93,304       (9,713)       (10,438)       73,153       34         2039       72       38.31       0       93,558       (9,719)       (10,444)       73,196       32         2040       73       39.31       0       93,411       (9,724)       (10,450)       73,237       31         2041       74       40.31       0       93,462       (9,729)       (10,455)       73,277       30         2042       75       41.31       0       93,551       (9,749)       (10,461)       73,355       27         2043       76       42.31       0       93,561       (9,740)       (10,466)       73,355       27         2044       77       43.31       0       93,609       (9,745)       (10,472)       73,393       26									41,780
2036       69       35.31       0       93,193       (9,701)       (10,425)       73,066       36         2037       70       36.31       0       93,249       (9,707)       (10,431)       73,110       35         2038       71       37.31       0       93,304       (9,713)       (10,438)       73,153       34         2039       72       38.31       0       93,588       (9,719)       (10,444)       73,196       32         2040       73       39.31       0       93,411       (9,724)       (10,450)       73,237       31         2041       74       40.31       0       93,462       (9,729)       (10,455)       73,277       30         2042       75       41.31       0       93,512       (9,735)       (10,461)       73,317       29         2043       76       42.31       0       93,561       (9,740)       (10,466)       73,355       27         2044       77       43.31       0       93,609       (9,745)       (10,472)       73,393       26         2045       78       44.31       0       93,655       (9,749)       (10,477)       73,429       25									40,121
2037       70       36.31       0       93,249       (9,707)       (10,431)       73,110       35         2038       71       37.31       0       93,304       (9,713)       (10,438)       73,153       34         2039       72       38.31       0       93,358       (9,719)       (10,444)       73,196       32         2040       73       39.31       0       93,411       (9,724)       (10,450)       73,237       31         2041       74       40.31       0       93,462       (9,729)       (10,455)       73,277       30         2042       75       41.31       0       93,512       (9,735)       (10,461)       73,317       29         2043       76       42.31       0       93,561       (9,740)       (10,466)       73,355       27         2044       77       43.31       0       93,609       (9,745)       (10,472)       73,393       26         2045       78       44.31       0       93,655       (9,749)       (10,477)       73,429       25									38,529
2038       71       37.31       0       93,304       (9,713)       (10,438)       73,153       34         2039       72       38.31       0       93,358       (9,719)       (10,444)       73,196       32         2040       73       39.31       0       93,411       (9,724)       (10,450)       73,237       31         2041       74       40.31       0       93,462       (9,729)       (10,455)       73,277       30         2042       75       41.31       0       93,512       (9,735)       (10,461)       73,317       29         2043       76       42.31       0       93,561       (9,740)       (10,466)       73,355       27         2044       77       43.31       0       93,609       (9,745)       (10,472)       73,393       26         2045       78       44.31       0       93,655       (9,749)       (10,477)       73,429       25									36,999
2039     72     38.31     0     93,358     (9,719)     (10,444)     73,196     32       2040     73     39.31     0     93,411     (9,724)     (10,450)     73,237     31       2041     74     40.31     0     93,462     (9,729)     (10,455)     73,277     30       2042     75     41.31     0     93,512     (9,735)     (10,461)     73,317     29       2043     76     42.31     0     93,561     (9,740)     (10,466)     73,355     27       2044     77     43.31     0     93,609     (9,745)     (10,472)     73,393     26       2045     78     44.31     0     93,655     (9,749)     (10,477)     73,429     25									35,529
2040     73     39.31     0     93,411     (9,724)     (10,450)     73,237     31       2041     74     40.31     0     93,462     (9,729)     (10,455)     73,277     30       2042     75     41.31     0     93,512     (9,735)     (10,461)     73,317     29       2043     76     42.31     0     93,561     (9,740)     (10,466)     73,355     27       2044     77     43.31     0     93,609     (9,745)     (10,472)     73,393     26       2045     78     44.31     0     93,655     (9,749)     (10,477)     73,429     25									34,117
2041     74     40.31     0     93,462     (9,729)     (10,455)     73,277     30       2042     75     41.31     0     93,512     (9,735)     (10,461)     73,317     29       2043     76     42.31     0     93,561     (9,740)     (10,466)     73,355     27       2044     77     43.31     0     93,609     (9,745)     (10,472)     73,393     26       2045     78     44.31     0     93,655     (9,749)     (10,477)     73,429     25									32,761
2042     75     41.31     0     93,512     (9,735)     (10,461)     73,317     29       2043     76     42.31     0     93,561     (9,740)     (10,466)     73,355     27       2044     77     43.31     0     93,609     (9,745)     (10,472)     73,393     26       2045     78     44.31     0     93,655     (9,749)     (10,477)     73,429     25									31,458
2043     76     42.31     0     93,561     (9,740)     (10,466)     73,355     27       2044     77     43.31     0     93,609     (9,745)     (10,472)     73,393     26       2045     78     44.31     0     93,655     (9,749)     (10,477)     73,429     25									30,206
2044     77     43.31     0     93,609     (9,745)     (10,472)     73,393     26       2045     78     44.31     0     93,655     (9,749)     (10,477)     73,429     25									29,004
2045 78 44.31 0 93,655 (9,749) (10,477) 73,429 25									27,850
									26,741
Total \$116,935 \$2,289,748 (\$238,363) (\$273,456) \$1,894,864 \$1,131,		78	44.31			. , ,	· · · · · · · · · · · · · · · · · · ·		25,676
	Total			\$116,935	\$2,289,748	(\$238,363)	(\$273,456)	\$1,894,864	\$1,131,141

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES MR. DOUGLAS C. MILLER

YEAR	AGE	TIME FRAME	HOUSEHOLD SERVICES	CARE SERVICES	FINANCIAL MANAGEMENT	SUMMER ACTIVITIES	TOTAL SERVICES	PRESENT VALUE
2001	34	0.31	\$3,393	\$2,440	\$2,000	\$184	\$8,016	\$8,016
2002	35	1.31	11,064	7,956		600	19,620	19,620
2003	36	2.31	11,064	7,956		600	19,620	19,620
2004	37	3.31	11,064	7,956		600	19,620	19,620
2005	38	4.31	11,064	7,956		600	19,620	19,620
2006	39	5.31	11,064	7,956		600	19,620	19,620
2007	40	6.31	11,064	7,956		600	19,620	19,620
2008	41	7.31	11,064	7,956		600	19,620	19,620
2009	42	8.31	11,064	7,956		600	19,620	19,620
2010	43	9.31	11,064	7,956		600	19,620	19,620
2011	44	10.31	11,064	8,275		600	19,939	19,939
2012	45	11.31	11,064	8,460		600	20,124	20,124
2013	46	12.31	11,225	8,195		600	20,019	20,019
2014	47	13.31	13,020	5,232		600	18,852	18,852
2015	48	14.31	13,075	4,275		600	17,950	17,950
2016	49	15.31	13,116	3,576		600	17,292	17,292
2017	50	16.31	9,790	2,195		236	12,222	12,222
2018	51	17.31	7,884	1,404			9,288	9,288
2019	52	18.31	7,884	1,404			9,288	9,288
2020	53	19.31	7,884	1,404			9,288	9,084
2021	54	20.31	7,884	1,404			9,288	8,718
2022	55	21.31	7,884	1,404			9,288	8,366
2023	56	22.31	7,884	1,404			9,288	8,029
2024	57	23.31	7,884	1,404			9,288	7,706
2025	58	24.31	7,884	1,404			9,288	7,395
2026	59	25.31	7,884	1,404			9,288	7,097
2027	60	26.31	7,884	1,404			9,288	6,811
2028	61	27.31	7,884	1,404			9,288	6,536
2029	62	28.31	7,884	1,404			9,288	6,273
2030	63	29.31	7,884	1,404			9,288	6,020
2031	64	30.31	7,884	1,404			9,288	5,777
2032	65	31.31	7,884	1,404			9,288	5,544
2033	66	32.31	7,884	1,404			9,288	5,321
2034	67	33.31	7,884	1,404			9,288	5,107
2035	68	34.31	7,884	1,404			9,288	4,901
2036	69	35.31	7,884	1,404			9,288	4,703
2037	70	36.31	7,884	1,404			9,288	4,514
2038	71	37.31	7,884	1,404			9,288	4,332
2039	72	38.31	7,884	1,404			9,288	4,157
2040	73	39.07	6,018	1,072			7,090	3,060
Total	· · · · · · · · · · · · · · · · · · ·		\$364,790	\$146,211	\$2,000	\$9,420	\$522,421	\$459,021

# Exhibit B-23

#### John E. Beauzile

28 Penny Lane Binghamton, NY 13905

Email: jeb2235@columbia.edu

#### Jerry S. Goldman

Anderson Kill 1760 Market Street, Suite 600 Philadelphia, PA 19103

Re: Update of Analysis of Economic Loss in the Matter of The Estate of **Mr. John Moran** 

January 7, 2020

Dear Mr. Goldman,

You have asked me to update the present value numbers in the analysis of the likely economic loss award from the September 11<sup>th</sup> Victim Compensation Fund prepared by **Economists Incorporate** (**EI**) dated **January 20, 2004**. I have used their assumptions for wages, benefits, taxes, personal consumption, replacement services, and discount rate to estimate those values and bring them to the present. The valuation date chosen is **January 1, 2020**.

In preparing this update, the only document reviewed is **EI**'s report. This update assumes the reader is familiar with the methodology used and assumptions made by **EI** and, therefore, they will not be restated here.

The update of **EI**'s analysis is summarized in four (4) sets of Exhibits.

- Exhibit 1 provides the summary of Lost Earnings, Retirement Benefits, and Lost of Replacement Services;
- The set of *Exhibits 2s* shows the details behind the loss of earnings numbers;
- The Exhibit 3 set provides supporting documentation for Retirement Benefits;
- The loss of Replacement Services amounts are in *Exhibits 4*s.

I believe that I have already provided you with a copy of my curriculum vitae. If you need a copy, please let me know.

Sincerely,

John E. Be, uzil

VALUATION DATE	01-Jan-20
DISCOUNT RATE	3.9%

## **EXHIBIT 1.** SUMMARY OF ECONOMIC DAMAGES MR. JOHN MORAN

	PRESENT VALUE
Present Value of Lost Earnings	\$5,099,914
Present Value of Retirement Benefits	918,429
Present Value of Lost Replacement Services	1,200,211
Total	\$7,218,555

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Base Salary	Unempl.	Tax Rate	Benefits	Pers. Consump.
119,843	0.0%	24.300%	5,192	8.85-16.51%

### **EXHIBIT 2A.** PRESENT VALUE OF LOST EARNINGS **MR. JOHN MORAN**

SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	AGE- SPECIFIC GROWTH FACTOR	EARNINGS	BENEFITS	UNEMPL. ADJ.	Taxes	CONSUMPTION	NET Earnings	PV of NET EARNINGS
2001	42	0.31	1.00000	\$36,445	\$1,592	\$0	(\$8,856)	(\$2,442)	\$26,739	\$26,739
2002	43	1.31	1.06737	127,917	5,454	0	(31,084)	(8,571)	93,716	93,716
2003	44	2.31	1.06537	136,279	5,683	0	(33,116)	(9,131)	99,715	99,715
2004	45	3.31	1.06337	144,915	5,921	0	(35,214)	(9,710)	105,911	105,911
2005	46	4.31	1.06137	153,808	6,170	0	(37,375)	(10,306)	112,297	112,297
2006	47	5.31	1.05938	162,941	2,829	0	(39,595)	(10,918)	115,258	115,258
2007	48	6.31	1.05740	172,294	2,948	0	(41,867)	(11,545)	121,830	121,830
2008	49	7.31	1.05542	181,843	3,072	0	(44,188)	(12,184)	128,542	128,542
2009	50	8.31	1.05344	191,560	3,201	0	(46,549)	(12,836)	135,377	135,377
2010	51	9.31	1.05146	201,418	3,336	0	(48,945)	(13,496)	142,313	142,313
2011	52	10.31	1.04949	211,386	3,476	0	(51,367)	(14,164)	149,331	149,331
2012	53	11.31	1.04752	221,431	3,622	0	(53,808)	(19,265)	151,980	151,980
2013	54	12.31	1.04558	231,524	3,774	0	(56,260)	(20,143)	158,895	158,895
2014	55	13.31	1.04558	242,077	3,932	0	(58,825)	(21,061)	166,123	166,123
2015	56	14.31	1.04558	253,111	4,097	0	(61,506)	(31,639)	164,063	164,063
2016	57	15.31	1.04558	264,648	4,270	0	(64,309)	(33,081)	171,527	171,527
2017	58	16.31	1.04558	276,710	4,449	0	(67,241)	(34,589)	179,330	179,330
2018	59	17.31	1.04558	289,323	4,636	0	(70,305)	(36,165)	187,488	187,488
2019	60	18.31	1.04558	302,510	4,830	0	(73,510)	(37,814)	196,016	196,016
2020	61	19.31	1.04558	316,298	5,033	0	(76,861)	(39,537)	204,934	200,743
2021	62	20.31	1.04558	330,715	5,245	0	(80,364)	(41,339)	214,257	201,997
2022	63	21.31	1.04558	345,789	5,465	0	(84,027)	(43,224)	224,004	203,259
2023	64	22.31	1.04558	361,550	5,695	0	(87,857)	(45,194)	234,195	204,530
2024	65	23.31	1.04558	378,030	5,934	0	(91,861)	(47,254)	244,849	205,808
2025	66	24.31	1.04558	395,260	6,183	0	(96,048)	(49,408)	255,988	207,094
2026	67	25.31	1.04558	413,276	6,443	0	(100,426)	(51,660)	267,634	208,389
2027	68	26.31	1.04558	432,114	6,713	0	(105,004)	(54,014)	279,809	209,690
2028	69	27.31	1.04558	451,809	6,995	0	(109,790)	(56,476)	292,538	211,001
2029	70	28.31	1.04558	472,403	7,289	0	(114,794)	(59,050)	305,848	212,320
2030	71	29.31	1.04558	493,935	7,595	0	(120,026)	(61,742)	319,762	213,647
2031	72	30.31	1.04558	516,448	7,914	0	(125,497)	(64,556)	334,309	214,983
Total				\$8,709,769	\$153,796	\$0	(\$2,116,474)	(\$962,513)	\$5,784,578	\$5,099,914

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Unempl.	Tax Rate	Pers. Cons.	Pension Contrib. Rate	401(k) Contrib. Rate	
0.0%	24.300%	8.85-16.51%	4.000%	0.000%	

# **EXHIBIT 3A.** PRESENT VALUE OF LOST PENSION BENEFITS **MR. JOHN MORAN**SPECIAL MASTER WORKLIFE

YEAR	AGE	TIME FRAME	PROJECTED PENSION	NET PENSION (PROJECTED-VESTED)	TAXES	CONSUMPTION	NET LOSS	PV of NET Loss
2001	42	0.31	\$0	\$0	\$0	\$0	\$0	\$0
2002	43	1.31	0	0	0	0	0	0
2003	44	2.31	0	0	0	0	0	0
2004	45	3.31	0	0	0	0	0	0
2005	46	4.31	0	0	0	0	0	0
2006	47	5.31	6,518	36,792	(10,524)	(2,902)	29,883	29,883
2007	48	6.31	6,892	37,292	(10,737)	(2,961)	30,487	30,487
2008	49	7.31	7,274	37,292	(10,829)	(2,986)	30,750	30,750
2009	50	8.31	7,662	37,292	(10,924)	(3,012)	31,018	31,018
2010	51	9.31	8,057	37,292	(11,020)	(3,039)	31,290	31,290
2011	52	10.31	8,455	37,292	(11,117)	(3,065)	31,566	31,566
2012	53	11.31	8,857	37,292	(11,214)	(4,015)	30,920	30,920
2013	54	12.31	9,261	37,292	(11,312)	(4,050)	31,190	31,190
2014	55	13.31	9,683	37,292	(11,415)	(4,087)	31,473	31,473
2015	56	14.31	10,124	37,292	(11,522)	(5,927)	29,967	29,967
2016	57	15.31	10,586	38,174	(11,849)	(6,095)	30,816	30,816
2017	58	16.31	11,068	39,066	(12,183)	(6,267)	31,685	31,685
2018	59	17.31	11,573	39,967	(12,524)	(6,442)	32,573	32,573
2019	60	18.31	12,100	40,876	(12,873)	(6,622)	33,481	33,481
2020	61	19.31	12,652	41,795	(13,231)	(6,806)	34,410	33,707
2021	62	20.31	13,229	42,723	(13,596)	(6,994)	35,361	33,338
2022	63	21.31	13,832	43,660	(13,970)	(7,186)	36,335	32,970
2023	64	22.31	14,462	44,607	(14,354)	(7,384)	37,332	32,603
2024	65	23.31	15,121	45,562	(14,746)	(7,585)	38,352	32,237
2025	66	24.31	15,810	46,528	(15,148)	(7,792)	39,398	31,873
2026	67	25.31	16,531	47,503	(15,560)	(8,004)	40,470	31,511
2027	68	26.31	17,285	48,488	(15,983)	(8,222)	41,568	31,152
2028	69	27.31	18,072	49,483	(16,416)	(8,444)	42,695	30,795
2029	70	28.31	18,896	50,488	(16,860)	(8,673)	43,851	30,441
2030	71	29.31	19,757	51,503	(17,316)	(8,908)	45,037	30,091
2031	72	30.31	20,658	52,527	(17,784)	(9,148)	46,253	29,744
2032	73	31.31	0	53,563	(13,016)	(6,695)	33,852	20,952
2033	74	32.31	0	54,608	(13,270)	(6,826)	34,512	20,559
2034	75	33.31	0	55,664	(13,526)	(6,958)	35,180	20,170
2035	76	34.31	0	56,731	(13,786)	(7,091)	35,854	19,785
2036	77	35.31	0	57,808	(14,047)	(7,226)	36,535	19,404
Total			\$324,416	\$1,373,744	(\$412,653)	(\$191,414)	\$1,094,094	\$918,429

**EXHIBIT 4A.** LOSS ESTIMATED VALUE OF REPLACEMENT SERVICES MR. JOHN MORAN

YEAR	AGE	TIME FRAME	Household Services	TOTAL SERVICES	PRESENT VALUE
2001	42	0.31	\$11,773	\$11,773	\$11,773
2002	43	1.31	40,107	40,107	40,107
2003	44	2.31	41,551	41,551	41,551
2004	45	3.31	43,047	43,047	43,047
2005	46	4.31	44,596	44,596	44,596
2006	47	5.31	46,202	46,202	46,202
2007	48	6.31	47,865	47,865	47,865
2008	49	7.31	49,588	49,588	49,588
2009	50	8.31	51,373	51,373	51,373
2010	51	9.31	53,223	53,223	53,223
2011	52	10.31	55,139	55,139	55,139
2012	53	11.31	57,124	57,124	57,124
2013	54	12.31	59,180	59,180	59,180
2014	55	13.31	61,311	61,311	61,311
2015	56	14.31	21,704	21,704	21,704
2016	57	15.31	22,485	22,485	22,485
2017	58	16.31	23,295	23,295	23,295
2018	59	17.31	24,133	24,133	24,133
2019	60	18.31	25,002	25,002	25,002
2020	61	19.31	25,902	25,902	25,373
2021	62	20.31	26,835	26,835	25,299
2022	63	21.31	27,801	27,801	25,226
2023	64	22.31	28,802	28,802	25,153
2024	65	23.31	29,839	29,839	25,081
2025	66	24.31	30,913	30,913	25,008
2026	67	25.31	32,026	32,026	24,936
2027	68	26.31	33,178	33,178	24,864
2028	69	27.31	34,373	34,373	24,792
2029	70	28.31	35,610	35,610	24,721
2030	71	29.31	36,892	36,892	24,649
2031	72	30.31	38,220	38,220	24,578
2032	73	31.31	39,596	39,596	24,507
2033	74	32.31	41,022	41,022	24,436
2034	75	33.31	42,499	42,499	24,366
2035	76	34.31	44,029	44,029	24,296
2036	77	35.31	45,614	45,614	24,225
Total		_	\$1,371,848	\$1,371,848	\$1,200,211